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HOSPITAL CONSTRUCTION AT THE UNITED STATES NAVAL HOSPITAL, NEW YORK

Plenty of Light and Air Distinguish the Hospital Structures Built in Brooklyn to Care for the Enormously Increased Numbers of Men—Government Care Extends Through Convalescence Involving New Feeding Problems Which a Cafeteria System Solved

By GEORGE A. LUNG, Captain, Medical Corps, United States Navy

THE facilities at the United States Naval Hospital, New York (Brooklyn), were found inadequate to take care of the increased number of patients brought about by the increased personnel of a larger navy and the influx of patients from the war zone. Preparations were therefore necessarily made for additional structures. To set forth a comparative display of the number of patients cared for in the U. S. Naval Hospital, Brooklyn, N. Y., the following figures may be of interest.

Number of patients cared for in 1916... 1,604
Number of patients cared for in 1917..... 5,913
Number of patients cared for from the beginning of the war, April 1, 1917, to November 14, 1918....28,826

Fig. 1. Hospital wings, building D., United States Naval Hospital, Brooklyn.

The design for the new building was planned by Mr. Grant LaFarge, consulting architect, New York. The general arrangement of the buildings was in the form of a letter M with three wings of two floors each and facilities for the care and treatment of approximately five hundred patients.

Of prime importance was the consideration that the building space was abundant, as contrasted with civilian hospitals in this neighborhood. Plenty of natural light and ventilation were readily afforded, inasmuch as the conservation of space was not of prime import. The specifications called for ample space and sun porches, as well as special conveyances for transportation from floor to floor. Arrangements were made for proper isolation rooms and noise-proof rooms for the care of delirious medical cases and such mental cases as may temporarily come under the hospital's care. Arrangements were made for special diet kitchens and preparations made for linen storage and large sized offices for nurses.

Another feature of great importance presented itself for consideration, namely, that the patients at the naval hospitals remain in these institutions from the onset of their illness until they are fully recovered and able to return to their usual vocations. The government is considered to be in a

paternal position, handling patients as members of one great family. As far as is practicable, provision has to be made for the care and feeding of walking patients as well as for the patients who are in bed. With this in view, a complete cafeteria system was installed in the main mess hall so that each man waits on himself and has the opportunity to get food just as it is served, thus saving the great amount of labor that would be required in serving. This system works so well that between four and five hundred patients can be served within an hour and a half.

The general dimensions of the main building are as follows: 163 by 29 feet, with three ward wings, 29 by 150 feet, and varying in height from 25 to 43 feet; also two wings 29 by 20 feet and 55 feet in length and 45 and 36 feet in height, respectively. The mess hall wing is 43 by 57 feet

Fig. 2. Cleaning up in the lavatory of building D.

by 36 feet in height, with solariums on the south end. The building is composed of brick piers and terra cotta curtain walls. Partitions on the inside of the building are composed of gypsum and terra cotta blocks. This building is covered by a wooden roof composed of trusses of long leaf pine (yellow) sheathed with a 7/8-inch by 6-inch pine, formed into hips and ridges for drainage and covered by 5-ply tarred felt and slag.

The footings, foundation walls, pipe galleries, floor constructions, and the roof over the dining room wing are composed of reinforced concrete T beams, with the spaces between the stems filled with terra cotta blocks. The stairs are built of reinforced concrete and finished with slate threads. The doors to the elevator shaft, all doors opening on the roof, and dumbwaiter doors are kalamein or fireproof.

Portland cement stucco was used on all exterior wall surfaces, including the tent house and the ceiling of the driveway and solariums; waterproof cement was used in the kitchen floors, bathrooms, pantries, diet kitchens and sterilizing rooms; patent plaster was put on all other walls and ceilings.

Fig. 3. This shining, up-to-date kitchen is the galley of building D of the naval hospital at Brooklyn.

The window frames and sashes are made of thoroughly seasoned clear white pine. The sashes are arranged in tiers, and pivot at the sides near the bottom without transom bars. The meeting rails are rebutted for weathering and so arranged that any sash can be operated independently of the others.

All hardware, except that on the windows, is solid cast bronze and polished. All windows are

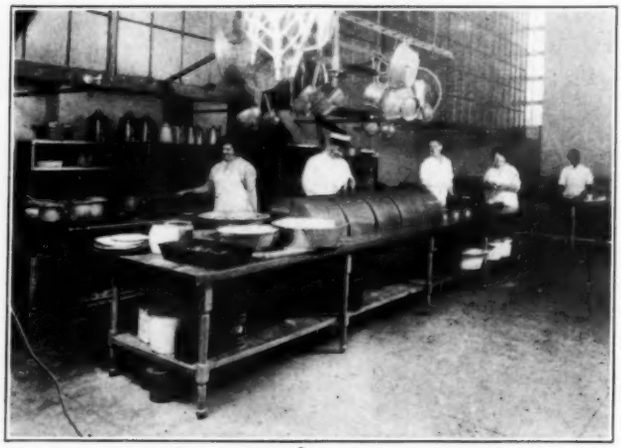


Fig. 4. Chow time for the convalescents in the cafeteria of building D.

glazed with double strength Grade A. There are tile floors and bases in bathrooms, diet kitchens, and utility closets. In all other rooms, cement bases are used. The floors are covered with linoleum, except in the center wing, where magnesite has been used. The walls and ceilings are painted navy buff, and all interior woodwork is enameled.

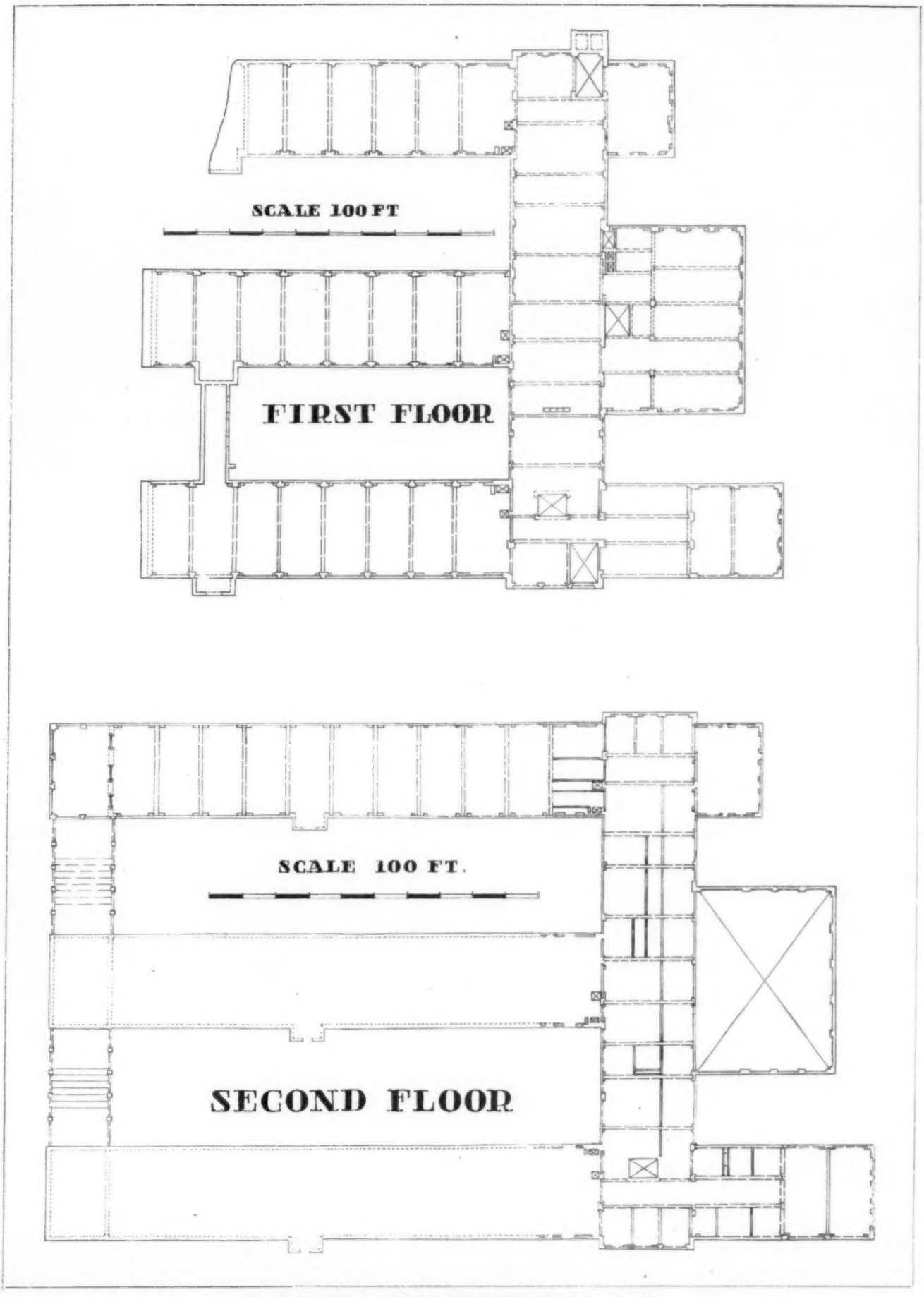


Fig. 5. Floor plans of the United States Naval Hospital at Brooklyn.

The elevator equipment consists of one electric passenger elevator of the winding drum type, having side guide construction, with a lifting capacity of 2600 pounds at a normal car speed of 100 feet per minute. This serves a total of three floors and four landings.

The dumb-waiter equipment consists of five hand-power dumb-waiters, three to travel about 26 feet and two about 17 feet. Each shaft has a capacity to lift 100 pounds easily.

The kitchen equipment of this building consists of ranges, ovens, broilers, vegetable steamer, steam kettles, work tables, coffee urns, ice-cream freezer, vegetable peeler, meat block and bench, meat slicer, meat chopper, bread-mixing machine, and dish-washing machine.

A complete refrigerating plant has been installed of the ammonia compression type, which cools the various refrigerators by the brine circulation and makes five tons of raw filtered ice per twenty-four hours.

There is a local fire alarm signaling system connected with all buildings on the premises and operating as one complete system.

All plumbing, gas and brine coils, stand pipes, hose racks, hose, and other fixtures have been furnished according to standard navy specifications. The steam-heating system is of the low-pressure type, and there is also a system of steam service for fixtures in the large kitchens, the special diet kitchens, and utility rooms, and all other rooms where fixtures requiring live steam connections are to be used.

An apparatus has been provided for furnishing a tempered-air supply ventilation to the wards by means of a centrifugal blower fan located in the roof space in connection with air filters and a tempered stack to cleanse and warm the air properly. The exhaust ventilation of the kitchen, diet kitchens, toilets, pantries, scullery, utility rooms, and mop closets is accomplished by means of a propeller fan, which is also located in the roof space and which discharges the exhaust air above the roof.

MENDING BEFORE CONDEMNATION AND REPLENISHING OF SUPPLIES

Careful Study Reveals Opportunities for Conservation—System of Condemnation and Replenishing Requires Each Article to Be Passed on by Housekeeper Before Being Discarded—Training Employees to Cooperate in Keeping Supplies in Good Condition

By LINA STRYKER FISH, General Housekeeper, Municipal Tuberculosis Sanitarium, Chicago

WITH the ending of the great conflict and things getting back to normal we are looking forward to old-time conditions as far as prices are concerned. Of the many lessons which this war with all its attending problems has brought, it is hoped that one of the greatest has been learned and will be retained—that of getting the most and best for the money—and after getting it, putting it to the most efficient use by keeping it in the very best condition and using up all odds and ends.

To illustrate what may be accomplished along this line, I will tell you a few things we have done at the Municipal Tuberculosis Sanitarium. In the sewing room, where orders come in for different equipment, we make a study to find out whether the article would be just as serviceable if made from a cheaper muslin, from muslin instead of Indian Head, or, perhaps, from unbleached muslin. Where we have been making laboratory coats of twilled material, we find that a heavy unbleached muslin, after a few washings, is perfectly satisfactory.

We were buying knee-pads for scrubbing, or getting jeans and padding with cotton and making them ourselves. The prices soared so that we are now using the "war flour" bags for the outside and stuffing with the remnants of old spreads that could no longer be of service, not even by being cut down for nursery cribs or bassinettes. We have used the best of our condemned sheets for the smaller beds. We utilize all flour sacks for dish towels. The "to be" dish towels are hemmed and marked to prevent their being torn up and used as rags. The outer sack of the sugar sack is used for scrubbing cloths, and the inner and thinner sack for dust cloths. The duck laundry bags that are condemned even beyond utilization for patching others we finish as scrub cloths.

One of the greatest economies in a hospital or institution is an intelligent system of condemnation and replacement, and this naturally includes the matter of mending. The plan we have found best is to have a certain day and time to give to condemnation, with a designated place. Each employee, including the laundrymen, sees to it that everything he considers past service is at this place, after which it is passed upon by the housekeeper. If the usefulness of an article is ended, it is recorded for future replenishing and

destroyed, but under no consideration is a new article given out until the old is either returned or satisfactory explanation given about it. This holds good for every article in service, from scrub-bush and mop to bedding and table linen.

The natural place to discover what needs mending is at the mangle, in the laundry. It is here that the folders for mangle can lay aside everything that is ripped in hem or seam, or torn by wear or accident, and send it to the mending room for repair or later condemnation. If the mender considers it past her ministration it is thrown aside for inspection on condemnation day, when its fate is finally sealed. The face or bath towel may be composed of two or three sections, but all its seams are for a worthy cause; parts of a bath towel too small for fitting in for a patched towel, may blossom forth as wash cloths. The remnants that can not be mended or made over make rags for window washing, brass polishing, and "general washing up" cloths, where scrub cloths are too heavy.

The sewing machines that can be adjusted for mending are the best and quickest. This process enables a rent in table cloth or napkin, or any other break, to be simply filled up unless its size requires a patch. The adage "A stitch in time saves nine" is very "pat" here. In replenishing the condemned list each week, a requisition is made up, and, as each article is listed and designated by its mark from the unit throughout the institution for which it was put in commission and marked, it is an easy matter to keep up the perpetual inventory. This plan works as nicely in an institution where there are hundreds of employees and patients as where there are only tens.

The problem of housekeeping in an institution or hospital is very nearly the same as that in the home, except on a greater or less scale. It means that, if one looks out for the little things, the greater will take care of themselves. Employees or patients are quick to recognize an article or garment that has had care and attention and been inspected. They will be slower to abuse such an article and destroy it than if indications point to the fact that it has been "just thrown in." Even if it slips by the mangle and gets into circulation out of repair, the employee will see that it gets to the mending room, for aside from the selfish reason that a mended article is easier to handle, its better appearance appeals to him. It is as easy to train a large number of people in these matters as it is to train a few.

THE SERVICE BUILDING OF THE RHODE ISLAND HOSPITAL

A Building Which Solved the Problem of Inadequate Kitchen and Dining Room Accommodation—Six Years of Satisfactory Use Have Proved the Excellence of Conception in Planning

By WARREN C. HILL, of Kendall, Taylor & Co., Architects, Boston

VERY frequently plans are published of hospital buildings recently completed or about to be completed, but, unless for historical purposes, few are published that have been completed and in use for over five years.

Herewith we publish a block of plans of Rhode Island Hospital and isometric drawings of the service building of Rhode Island Hospital, completed and in use since 1912. This building, in both plan and construction, has proved the excellence of its conception, and were the trustees to build again they would make but few changes from the original plans, so satisfactory has been their experience with six years' use of the building.

The hospital itself, opened in 1868, is located in a beautiful park of about twenty-five acres, overlooking the Providence River, and includes, beside the main hospital (which is a group of three large ward buildings and an administration building) an out-patient building, two fine nurses' homes, a power house and laundry, a greenhouse, a garage, a recently completed babies' pavilion, and other buildings of various utilities. A convalescent hospital for children is located some miles away on the shores of Narragansett Bay.

The original buildings were the result of a careful study of the best conditions in hospital buildings then existing, and their adaption to the needs of today bears testimony to the skill and foresight of the founders and their technical advisers. The hospital, always fortunate in its executive committees, trustees and superintendents, has, under their wise management, from time to time planned and carried out revisions of and additions to its buildings calculated to afford the best facilities for its work and to make provision for the latest developments in surgical and medical science. With this in mind, a few years ago they completely rebuilt the operating

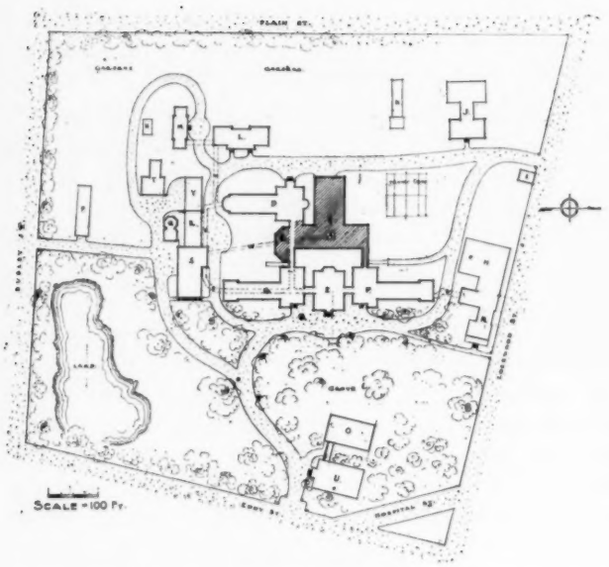


Fig. 1. Block plan of the Rhode Island Hospital, Providence, R. I.

A. Boiler chimney.
B. Service building.
C. Solarium.
D. Southwest pavilion.
E. Administration bldg.
F. North wing.
G. South wing.
H-H. Nurses' homes.
I. Gardener's cottage
J. Female employees' home.
K. Green houses.
L. Babies' pavilion.
M. Isolation buildings.
O. Additions to o. p. dept.
P. Store house.
Q. Morgue and autopsy.
R. Coal bunkers.
S. Power house, laundry, and male employees'.
T. Garage.
U. Out-patient dept.
V. Subways.
W. Smoke flue.
X. Disinfecting bldg.

department, unexcelled in convenience and accommodation by any of the larger hospitals in the East.

Within two years very extensive additions to the out-patient department have been made and further addition in the nature of a large building for private patients is contemplated.

The superintendent of this ideal institution is Dr. John M. Peters, who recently passed his twenty-fifth anniversary as superintendent of the hospital. It was his guiding hand that produced so satisfactory a result in the service building.

Increasing demands made the earlier kitchen and dining room equipment inadequate for the best results, and the trustees accordingly arranged for a service building, which gives ample accommodation to these departments and their dependent offices, and will give such accommodation for many years to come. The plan of the existing buildings and their relations to each other made only one site possible for the new building, and that site was somewhat complicated by the situation of the boiler chimney, which stands directly in the rear of the administration building and has been entirely surrounded by the new building. This stack, carrying the smoke from 350 horse-power boilers, is located several hundred feet from the boiler house and is connected with the boilers by a flue which runs under a portion of the basement of the new building.

A connecting corridor, running from the southwest pavilion, is utilized for connections to the service building, which is in the rear of the administration building and north of the southwest pavilion. A corresponding corridor on the northern side, which may eventually connect with a new building, at present connects the service building with the north wing. From these corridors, inclines lead to the lawns at a gradient so slight that hand chairs and rolling cots can be easily rolled up or down, to allow patients to reach the beautiful grounds around the hospital buildings. Another corridor joins the two above mentioned and gives access from them to the dining room on the first floor and to the service and lifts on the basement floor. The roofs of the corridors give open-air connections to the second story.

On the southern corridor, as a base, an open-air balcony or solarium is built as a part of the service building, 25 feet wide and 65 feet long, with tiled floors and roofs and connecting with the hospital proper by the corridor, on two floors. The basement is used for x-ray work.

The service building itself is T-shaped, touching the corridors at the extremities of the top of the T, and is separated by ample spaces from the main buildings and the southwest pavilion. It is two stories high, with a basement and a sub-basement under the west portion of the building. Its extreme dimensions are 129 feet by 47 feet, and 89 feet by 60 feet.

It is absolutely fireproof throughout and is built of waterstruck brick, with trimmings of granite, sandstone, and bluestone, conforming in general style to the present buildings, though somewhat simpler, as befitting its more utilitarian purpose.

The sub-basement contains storerooms for heavy supplies, range coal, and groceries, and a

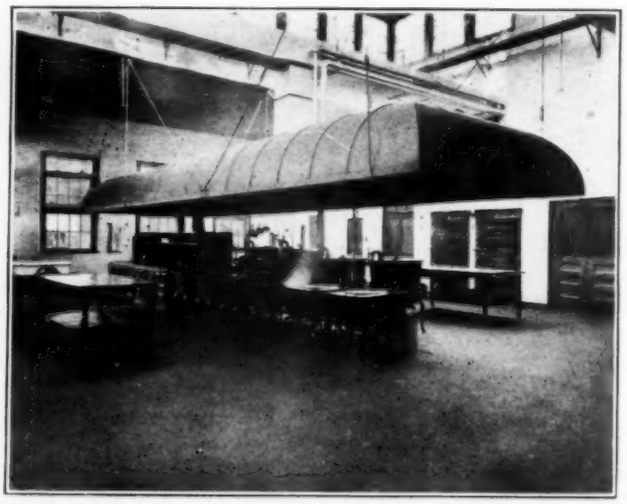


Fig. 2. Main kitchen of service building.

Fig. 3. Nurses' dining room of service building.

tankroom, which connects through a subway with the sub-basement of the southwest pavilion, through which are brought the piping for steam, hot water, elevator mains, etc., from the power house. This story is served by two plunger elevators running to each floor above and at the westerly end connects by the main stair to the basement story.

bakery and diet kitchens, under the supervision of an officer, who is provided with an office and toilet.

Directly in the rear of the receiving room are the refrigerators for meats, butter, eggs, milk, and fruit, cooled by circulation from a refrigerating and ice-making plant which is in the power house. The refrigerators in the serving rooms, diet kitchens, bakery, etc., are cooled by brine circulation from the same plant.

Two staircases, one at either end of the building, are of fireproof construction, enclosed in brick walls.

The entire space under the cross of the T is used for stores, except that taken up by the smoke flue and the connecting corridors.

All supplies for the kitchen go up on the west elevator, and all cooked food distributed to the hospital, except that used in this building, is loaded upon food carriers and sent from the kitchen to the top floor, by the east elevator, to the cross-corridor which connects with the north and south corridors, which, in turn, lead to the corridors of the main hospital and pavilions, where the carriers are taken up on other elevators to

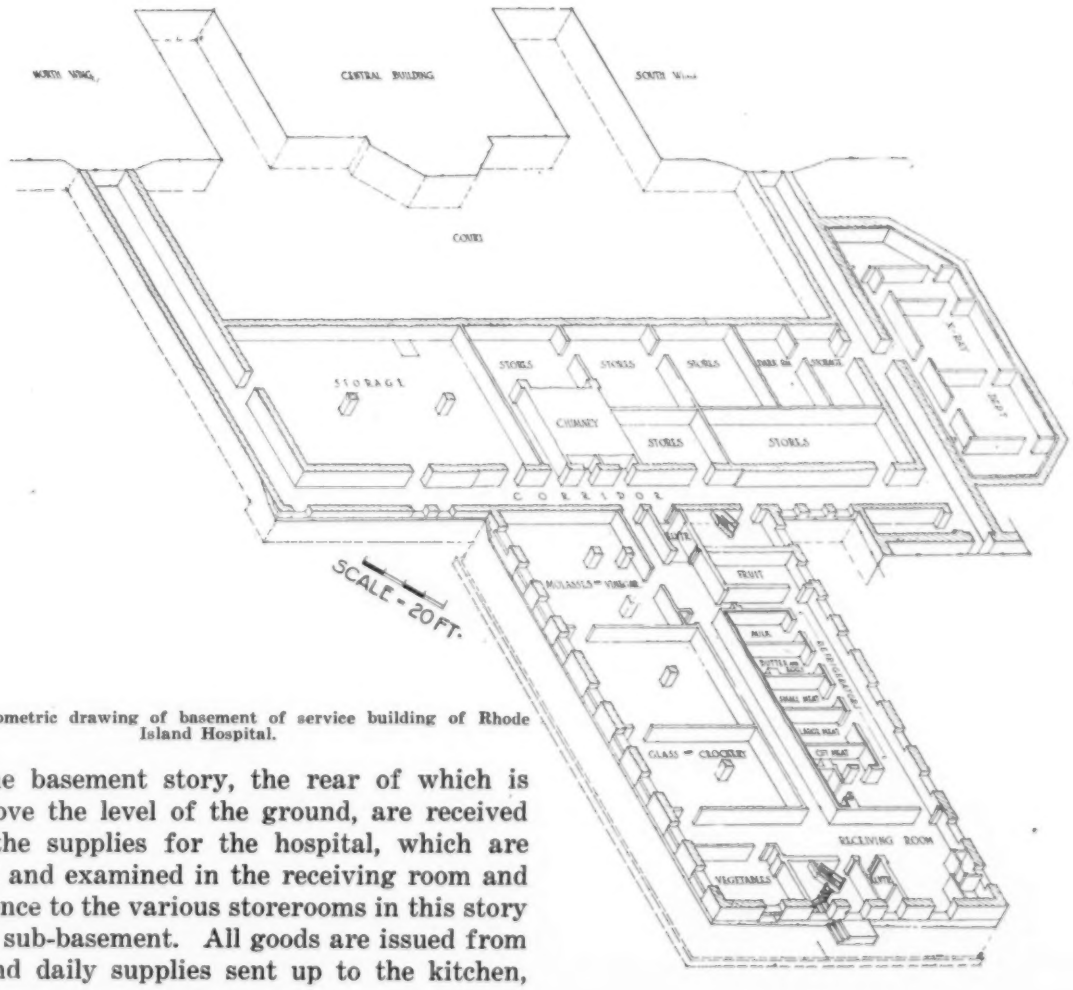


Fig. 4. Isometric drawing of basement of service building of Rhode Island Hospital.

In the basement story, the rear of which is just above the level of the ground, are received all of the supplies for the hospital, which are checked and examined in the receiving room and sent thence to the various storerooms in this story and the sub-basement. All goods are issued from here, and daily supplies sent up to the kitchen,

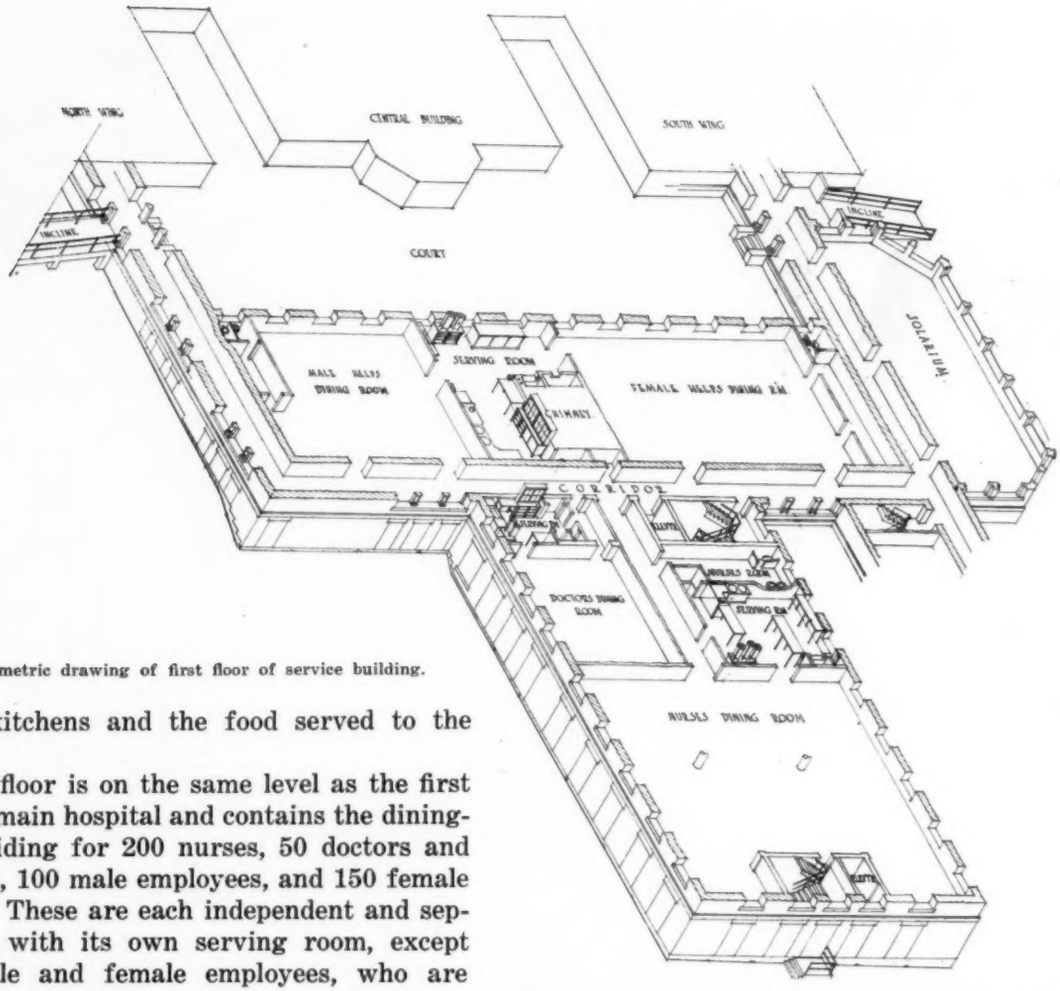


Fig. 5. Isometric drawing of first floor of service building.

the ward kitchens and the food served to the patients.

The first floor is on the same level as the first floor of the main hospital and contains the dining-rooms providing for 200 nurses, 50 doctors and staff officers, 100 male employees, and 150 female employees. These are each independent and separate, each with its own serving room, except for the male and female employees, who are served from one room located between the two dining rooms. Each dining room has clothing-room and toilet provisions.

The serving rooms are furnished with steam tables, coffee and tea urns, power-driven dish-washers, silver and glass sinks, refrigerators, and shelving, and connect by automatic electric lifts with either the kitchen or special serving rooms above, insuring prompt and efficient service.

The corridors and stairs are so arranged as to avoid crossing by the different groups and, so far as possible, crowding and confusion at meal times. The dining rooms and corridors are shut off by doors from the main passages and halls leading to the hospital to prevent noise or odors from being carried to the other buildings.

The real work of the building is done on the top or second floor. Here are the kitchen, the bakery, the pantries, the special diet kitchens, and cooking and class rooms of the training school.

Approaching the new building from the south corridor, one passes through the sun room, looking to the south, and enters the class room, 22 feet by 34 feet, which communicates directly with the diet kitchen. In this room, which is equipped with general and milk refrigerators, pantry, ranges, etc., are prepared all the special diets for the hospital. The adjoining class room is also completely equipped with ranges, tables, etc., for the cooking classes. In this room also will be prepared, under the most hygienic and up-to-date conditions, the milk for the many babies daily cared for by the hospital.

The diet kitchen opens on the corridor, which on this story does not extend directly to the north and south corridors, but separates the kitchen wing from the diet kitchen, serving room, etc. From this corridor opens the elevator by which the trays are sent in carriers to the wards.

Directly opposite the kitchen, and around the great chimney, is the serving room, which is directly over the one on the floor below. Adjoining this room is a small dining room for the kitchen employees, where they can enjoy their meals away from the heat and bustle of the kitchen.

The northern end of this wing is used as a large sewing room, lighted from three sides and supplied with large closets for clothing and linen, and a small office for the housekeeper.

Across the corridor from the rooms above

described, the entire remainder of this floor is occupied by the kitchen and bakery with their dependent offices. The kitchen, running north and south, extends entirely across the building, having light and air from both ends and from the large monitor over the ranges in the middle of the room. Between the kitchen and the corridor are the staircase, opening both to the corridor and to the kitchen, and the food service elevator, on which are sent out all services for the wards and private rooms. Adjoining the elevator are the cook's refrigerators and near by are the cook's storeroom and a drying closet. On the other side of the kitchen are the ovens—a large oven for baking, opening from the bakery, and a smaller oven for roasting meats, opening from the kitchen. A large steam-heated pan-washing sink is located in a space by itself adjoining the kitchen, with a pan closet opening out of the same space. In the rear of this is a room for cleaning and preparing vegetables, with suitable tables, sinks, and vegetable parer.

Running back from the kitchen to the rear is a wide corridor, and opening in a line with this is the elevator from the basement storerooms. On the same corridor are a fuel storage room, a toilet for male employees, garbage room, etc., and the rear staircase. From a cross-corridor here, one enters the bakery, which contains the brick oven mentioned above, flour- and bread-closets, refrigerator, tin closet, and storeroom. The latest and best machinery for mixing, etc., is installed in this room. At the western end is a pastry cook's table and an ice cream room, with freezer, hardening cabinet, packing room, etc. The freezing is done by power and brine circulation, and the usual floor covered with cracked ice and salt is conspicuous by its absence.

In the construction and finish of the building the same care and attention have been given as in any other portion of the hospital. Sanitary finish, coved bases, impermeable material and fireproof construction were adopted everywhere. The stairs are of iron with slate or blue-stone treads and platforms. The elevator shafts and staircases are lined with pressed brick.

The floors in the basement and sub-basement are of granolithic, and in other stories, of white marble terrazzo, except those in sewing room and closets, which are covered with battleship linoleum. The solarium floors are of red quarry tile laid with wide joints, and the kitchen floor is of rubbed slabs of North River stone. The walls are finished generally in hard plaster above a dado of terrazzo 4 feet 6 inches high. The walls of the kitchen and bakery are faced with white glazed enameled bricks from the coved slate base at floor to ceiling.

Walls and ceilings are enameled and the quartered oak doors finished in varnish, rubbed down to a dull gloss.

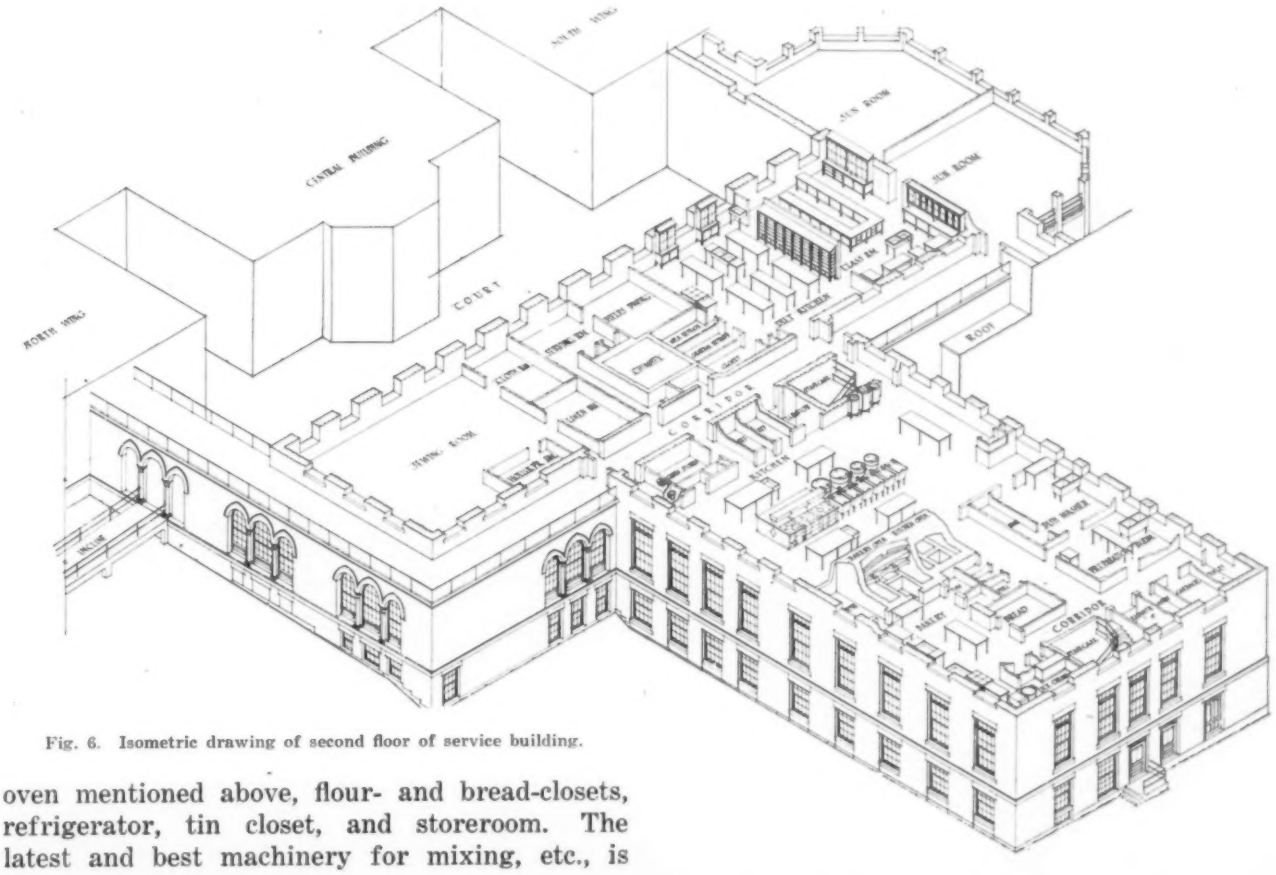


Fig. 6. Isometric drawing of second floor of service building.

THE EDUCATIONAL VALUE OF HOSPITAL REPORTS

Points to Be Covered in the Ideal Hospital Report—An Interesting Appeal to the Public—Clear and Definite Statement of Service That the Hospital Has to Offer—Appeal for Contribution

By CARL E. McCOMBS, M. D., Chief of the Division of Health, Bureau of Municipal Research, New York City

TO the average layman the hospital is terra incognita. He is quite prepared to believe current stories of the inefficiency of nurses, the incompetence of surgeons, and the abuse of patients, because he has little genuine information about hospital matters. His knowledge is too often based upon mere gossip or upon the statements of his private physician, whose own knowledge of hospital service is frequently superficial.

For example, the legend of "the black bottle" of Bellevue hospital, from which the troublesome patient received a draught which quieted him forever, still persists in certain sections of New York City. In my hospital service, I have heard the "black bottle" story many times and have had to argue long to convince patients that the "black bottle" is a myth. Hospital authorities know how common are complaints of abuse of patients, and they know, too, how often these complaints are unfounded. Yet the fact that the public is quite ready to believe stories of hospital abuses is very significant.

The greatest gains in public health during the past ten years have been made through the education of the public and the cooperation of informed citizens, but as yet hospital authorities have taken little part in this popular educational campaign, chiefly because they have not fully realized that hospital problems are community health problems. Hospitals are conducted to supply a community need—not merely for the benefit of a group of physicians or surgeons, or for the training of internes and nurses. If the hospital does not meet a community need and if its patients do not receive better care within its wards than they could secure elsewhere, the hospital has failed in its purpose except as a training ground for nurses and doctors, and this must, in the last analysis, be considered secondary to the welfare of patients.

All credit should be given to boards of directors and boards of managers of hospitals who give freely of their time and money for hospital support and betterment, but too often the very complacency of hospital boards is responsible for the lack of adequate popular support and cooperation in the hospital program. Many hospital superintendents feel that when they have satisfied their boards of directors or boards of managers they have done all that may reasonably be expected. This is why hospital publicity is not chiefly directed toward informing the public but rather toward gratifying hospital boards, and it is for this very reason that hospital publicity has failed to secure the interest and cooperation of citizens who are not officially concerned with hospital affairs.

In the majority of instances, hospital publicity is limited to the annual report. In some hospitals, bulletins are published periodically, but these are designed chiefly for limited circulation among the members of the hospital boards or among contributors. Analysis of annual reports and other publications of hospitals throughout the country demonstrates clearly that, in so far as the education of the public is concerned, these publications are of very little value. As most hospitals publish an annual report, some suggestions are well worth considering as to what such a report should contain that is of educational value.

The determination of the efficiency of hospital service depends in considerable degree upon the comparison of that hospital with other hospitals doing the same kind of work and under approximately the same conditions. If, for example, it is found that one hospital has an exceptionally high mortality rate for its pneumonia cases as compared with another hospital, the reasons for high mortality in the one should be made the subject of careful study; if, in the maternity service of one hospital, practically all maternity patients are delivered by instrumental means, with frequent injury to mothers and babies, and in another hospital are delivered without instrumental means, that is, normally, an investigation to disclose the reason for such wide difference in procedure is warranted; if in one hospital the "patient-day" cost of service is high without any better results being secured than in a hospital where the cost is low, reasons should be sought for such high cost; if the cost of overhead in one hospital is relatively much higher than that in another giving as good service, it is important that the hospital authorities and the public know it. It is true that comparisons are odious, but it is equally true that it is only by comparisons that the bad may be found out and eliminated, and the good taken advantage of. Our standards of measurement in all things are raised only as our experience broadens, and more comparisons of our

own experience can be made with the experience of others.

Assuming, then, that there is a value in the comparison of hospital reports and hospital statistics, it is obvious that there must be some common standards of measurement. To compare one hospital with another on the basis of data now presented in annual reports would be like comparing sugar and salt on the basis of their physical properties, without any regard for their uses or chemical constituency. There are, however, certain standards of measurement which may be applied to hospitals, and, if these standards are used for measuring hospital work and results, comparisons will be well worth while. With the view, then, of furnishing hospital authorities and the general public with information which will be standard and comparable, I have attempted to set forth in succeeding pages my idea of what information should be made available for the citizen in an annual report. Not all hospital authorities will agree with me—that is certain—but it is also certain that some of my observations will strike a responsive chord in the breast of the "average citizen."

First of all, the annual reports of hospitals, if they are to be used for the development of comparable data in hospital service, should cover the same fiscal period, and this period should be, if possible, the calendar year, January 1, to December 31, inclusive. In New York State, for example, owing to the fact that the state board of charities requires the hospitals of the state to submit reports for the fiscal period of the state, namely, July 1, to June 30, inclusive, this period, instead of the calendar year, is used by many New York hospitals for their annual reports. Other states require reports for a different fiscal period. Comparison of statistics of a hospital using one fiscal period with those of another hospital using another period is unsatisfactory, to say the least.

Readers and writers of reports of one kind or another know that method of presentation of material is a most important factor in the usefulness of these documents. The world is full of reports of all kinds that have been read by few people except the author, and the reason they have been "scrapped" without careful reading and without obtaining their desired ends is that the fundamental facts of good publicity have been ignored. When the average man sits down to read a report, it takes him a few minutes to get comfortable and to adjust himself to the business of reading. If the report begins uninterestingly, he puts it aside until "tomorrow" but tomorrow never comes, so far as that report is concerned, for he has lost interest in it. But if the report begins with some statement or story which will hold his attention during the time that he is adjusting his mental and physical processes and getting comfortable in his chair, he will, in the majority of instances, continue that interest to the end of the report, provided in other respects the report tells him what he wants to know clearly and succinctly.

The first thing, then, that an annual report should offer is a story—the superintendent's story—of what the hospital does, the difficulties it encounters, its aims and aspirations. Here is the place for the "heart throbs" and the human interest. This superintendent's story should not be too long, but merely a brief summary statement, readable, non-technical and designed not chiefly for a board of directors or medical staff, but for "Mr. Average Citizen," who has merely ordinary knowledge of hospital work. In short, it should fulfill the same purpose as the head lines of the newspaper—to attract attention and stimulate a desire on the part of the reader to know the full story. If some humor can be injected into the story, so much the better. The business of a hospital is necessarily one that concerns the pathos of life, but too much stress on the pathetic in these times is likely to discourage the reader.

The next thing that the average reader of a hospital report would like to know, after his attention has been gained and held, if the report is of a hospital in his own community, is what the hospital is prepared to do for the citizens of his community and for him. We have yet to see a hospital report containing a clear and concise statement of what the hospital has to offer in the way of service to the citizen; what kind of cases it will receive; what kind of rooms or ward beds it has available, and how they are equipped; what kind of food it serves, and what charges it makes for ambulance service, bed service, operation, special nursing services, drugs, laboratory work, x-ray work, etc. Yet these things are matters of considerable moment, not only to the patient who wishes to enter the hospital, but also to the possible contributor. One may well wonder how long it will take hospital authorities to understand that if they have a service to sell, they should be willing to state what that service is and how much it costs. No one with experience in hotels would think of going to a hotel and engaging rooms and service without some definite knowledge of the service offered and its cost.

Ordinarily, arrangements are left to the physician, who negotiates with the hospital authorities, and the patient does not know until he receives his bill just what it is going to cost him. Physicians know how frequently patients

complain of being overcharged for services rendered. Many of these complaints would be done away with if there were a clear understanding on the part of the patient of what he will have to pay for his hospital experience. Of course, it is not always possible to say exactly what hospital service will cost, but so far as possible, the prospective patient or contributor should know.

The next thing that a citizen wants to know about a hospital is how it is governed. When a business man is asked to become interested or to invest in a given enterprise, one of the first inquiries he makes after being informed of the purpose of the enterprise is, "Who are the directors?" and the presence or absence of the names, as directors, of men or women in whom he has confidence has considerable weight in influencing his decision. There should be, therefore, in a hospital report, a clear statement of the organization of the administrative board or head with a list of the names of the members of the board of directors or trustees. If they are men and women in whom the citizen has confidence, he will have confidence also in the hospital's work.

Having informed the reader of the purpose of the hospital enterprise and the personnel of those responsible for its administration and control, the organization of the hospital force should be considered and the report should contain an outline of the hospital force, including the medical staff, from the superintendent down to the most humble dish-washer, with the salaries or wages paid each member of the organization. Such outline should be shown graphically in the form of an organization chart, indicating all lines of responsibility leading upward through the various branches of hospital service to the superintendent and the board of directors or trustees. Every business man knows the value of good organization, and he knows also something about salary and wage standards in business. An organization chart, therefore, which will show exactly how supervision is exercised and how the various hospital units are related, will enable him to form some judgment as to the efficiency of the supervisory and working force and the relation of these to salary cost.

Having informed himself as to the general organization of the hospital, the reader of the report would probably next inquire about the present state of the hospital's finances and what it proposes to do with the money which is solicited. In other words, he would ask for its budget. Briefly, a budget is a well-defined plan for financing any private enterprise or unit of government for a definite period. Officers of national, state and municipal government have realized the need and use of a budget or plan for financing their respective units of government. A budget is just as necessary for a hospital, and should include the following:

1. A balance sheet showing what the hospital owns and owes.

2. A statement of past operations, showing in comparative form the revenues and expenses accrued during each of the preceding two years, revenues being classified according to sources, and expenses classified according to the various hospital functions served, as medical care of patients, nursing service, laboratory service, housekeeping service, etc. The statement of expenses should be supplemented by unit costs wherever possible, that is, cost per patient day for medical care, nursing care, food, drugs, etc.

3. A statement showing the various sources of revenue and the estimated amount of revenue from each of these sources which may be expected in the next year.

4. A special statement setting forth in some detail the regular work to be performed on the basis of past experience, and extensions of ervice, improvement to be made, or other changes contemplated in the next year, with the estimated cost thereof.

Such a budget plan would give the citizen accurate knowledge of the financial condition of the hospital; would enable him to determine how far present revenues meet existing needs, and to what extent his assistance is needed for carrying on the extensions of service recommended. In short, he would be able to exercise business judgment in determining the amount of his contributions to the hospital as a business enterprise.

Before finally deciding that he would subscribe to and cooperate in the hospital's program, he would be likely, as a good business man, to inquire whether the results secured were worth the cost, and in the present state of hospital statistics he would probably have considerable difficulty in satisfying himself on this point. There are few hospitals in the country, except in the larger cities, where records of the medical care and treatment of patients are worth the paper they are written on. Physical examination records are often completely lacking; records of temperature, pulse, respirations, etc., are often omitted; nurses' notes are fragmentary and stereotyped; records of operations are often too brief to be of any value; and laboratory records are negligible. In fact, before there can be any records worth comparing, the hospital superintendent must see that records are properly kept. There is, however, certain information which every hospital keeps at the discharge of patients as to the result of treatment, as "recovered," "improved," "unimproved," "died." Such statistics should be shown for all patients according to disease or injury, and this is usually done; but in order that such a statistical statement may have comparative value, it is, of course, necessary that there

be used, in designating diseases or injuries, a common, approved nomenclature, such as has been adopted in the Bellevue and Allied Hospitals of New York City, and is known as the "Bellevue Hospital Nomenclature." At the present time there is some difficulty in determining because of lack of use of a standard nomenclature, whether "pneumonia," "appendicitis," "gastro-enteritis," etc., mean the same in one hospital as in another, and they must mean the same if the results of treatment are to be compared. Further classification should be made of the results of treatment of infants and adults, private and public patients. It would be well also to show separately the results of treatment in each department of the hospital, as the medical department, surgical department, children's department, maternity department, etc., instead of lumping all patients in one general group, since in all hospitals practically the same departments or branches of service are represented.

In every community the important question is bound to come up sooner or later in regard to the necessity of increasing the hospital facilities. The demand for hospital service, rather than private medical service in the home, is increasing daily, and hospitals must be prepared to meet the need. Yet there are few hospitals in which there are adequate records to show, for any given period, what was the actual percentage of bed occupancy for that period. To show these facts is by no means difficult, and accurate statistics as to occupancy offer a really convincing argument for or against increasing hospital space. The total available bed capacity of the hospital should first be clearly stated and divided, according to the various units of the hospital, as men's medical, women's medical, men's surgical, women's surgical, maternity, children's department, etc., depending on the actual departments maintained in each case. From this bed capacity the possible number of patient days may be calculated by multiplying the bed capacity of each department by 365. The actual occupancy of beds, that is, patient days, in the various departments should then be determined from the hospital records, and the percentage of occupancy calculated by dividing the actual number of patient days in each department by the total possible patient days for that department. If, for example, it is found that the children's department is only occupied to 25 per cent of its capacity in the year's period, it indicates that some of this space may perhaps be utilized for other purposes; if the maternity wards show a percentage of occupancy above 85 per cent it is evident that there is need for more space for this department, for 85 per cent is perhaps as high a percentage of occupancy as can be efficiently maintained in any department. There must be always a few vacant beds for emergency.

Such records as have been described will give the citizen and possible contributor a clear understanding of where extensions of service are needed. The mere statement that the hospital had 30,000 patient days means nothing to him unless he knows how these patient days were divided according to the classes of patients cared for, and what percentage of the total possible patient days 30,000 represents.

In the majority of reports of private hospitals one usually finds lists of contributors and the contribution of each. This is, of course, desirable because contributors deserve such recognition, but what is more important is the method of soliciting contributions. They should be solicited in the hospital reports for general rather than special purposes. In many hospitals large sums have been contributed for special purposes, and, because of lack of proper development of service toward the purposes for which the funds are designated, this money lies idle and cannot be used for other and more urgent purposes. The annual report of a hospital supported by private contributions should, therefore, make its plea for funds for general hospital operation and maintenance, leaving it to the discretion and judgment of the administrative board or head of the hospital as to the use of such funds. If the administration of the hospital is well provided for and adequate reports of stewardship are made, as suggested in preceding paragraphs, little difficulty will be found in inducing contributors to make their contributions without restrictions.

It would be advisable also to include in the annual report, as is done by some hospitals, a subscription blank which may be torn out and sent in by the one reading the report, in the event that he wishes to contribute. The citizen who receives a hospital report which tells him what he wants to know about the work of the hospital and its cost, will be in proper frame of mind to contribute when he has read the report.

To sum up, the annual report of a hospital should, if possible, cover the period of a calendar year, namely, January 1 to December 31, inclusive, and should include, as a minimum, the following features in the order named:

1. The superintendent's story, brief, to the point, readable and entertaining.
2. A clear and definite statement of what the hospital has to offer in the way of service, including the kind of ward beds or private rooms available and their equipment, kind of food served, charges for bed service, operations, laboratory service, x-ray service, drugs, etc.
3. The organization and duties of the administrative board or head of the hospital.

4. A graphic representation of the organization of the hospital force, including the medical staff, from the superintendent down, showing the names, salaries and wages of the various employees, the units or departments of the hospital in which they are employed, and the relation of the various units or departments to the complete organization.

5. The hospital budget, including a balance sheet of what the hospital owns and owes, with comparisons for at least two years previous, showing also in comparative form revenues and expenses with unit costs; a statement of the sources of revenue for the ensuing year, and the possible amount to be derived from such sources and a work program setting forth work to be performed, extensions and additions contemplated and the estimated cost thereof.

6. Results of hospital treatment, including special tables for each department of the hospital, with details of kind of cases treated and the outcome of treatment of patients classified according to diseases or conditions.

7. The available bed capacity of each unit or department of the hospital, the number of possible patient days, and the actual number of patient days or bed occupancy, including the percentage of occupancy in each unit or department.

8. A plea for contributions for general hospital purposes with a list of contributors and a subscription blank for the use of contributors.

The essentials of a good hospital report, designed chiefly for informing citizens and contributors, include at least the foregoing items. Reports should not be padded. Padding a report is not only expensive to the hospital, but has a tendency also to minimize the usefulness. The tired business man has no time to read a hundred-page book on hospital business, but he will read a report which is brief and to the point. Brevity then, which is the soul of wit, should also be the soul of a hospital report.

TELEPHONE OPERATOR'S INFORMATION CARD

Prompt and Authoritative Service Insured by Simple Scheme of Card Index Kept Up by the Night Clerk and Checked by the Head Nurse of Each Ward

By PLINY O. CLARK, Superintendent of the Ohio Valley General Hospital, Wheeling, W. Va.

AT any hospital the information clerk and the telephone operator should be considered two of the most important employees. Perhaps the work of the telephone operator is the harder of the two, because it can not be checked up so thoroughly, and yet its results appear quite unexpectedly; for instance, after she has carelessly given out information in a tragic tone of voice saying that a patient is not so well this morning, the relatives immediately rush in, expecting to find the patient at death's door.

Information regarding a patient in a dying condition should undoubtedly be given out by an officer in authority, but much information can be given out by the telephone operator in an entirely satisfactory manner if she is provided with authoritative records, such as the card system here pictured is intended to give.

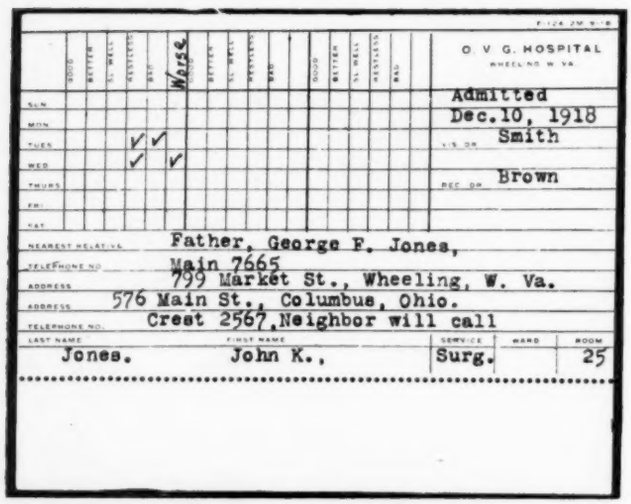


Fig. 1. Information card indicating condition of patient.

Usually the morning hours are the ones during which the greatest number of inquiries regarding the condition of the patients come in. These are the hours when the nurses are the busiest; so the simple scheme which is illustrated in this article was devised and is working very well.

Information regarding the patients is contained in a card index, the card used being that put out by the American Kardex Company for use with the Kardex system. The name is on the bottom line and is always visible in the panel at the elbow of the clerk, who has merely to place her finger on the card and push up the cards above to make all the information available. In fact, the reply can go back to the inquirer immediately, or almost before the question is out of his mouth. The tab at the bottom of the card (Fig. 1) is, of course, torn off as soon as the card has passed through the typewriter.

This information is, of course, used only during the early morning as an indication to the operator of the general condition of the patient during the rest of the day.

The card is executed by the night clerk for all of the patients admitted on the previous day; in fact, up to 7 a. m., the condition is indicated by the night supervisor, who checks it in the proper

column before going off duty. This eliminates much of the calling of floors during the busy hours of the morning. In a very large institution, the head nurse of each ward or floor should doubtless give this information and check the records herself.

A patient in a dangerous condition is noted by a red indicator placed over the name; a patient to be operated on that morning is noted by a blue indicator placed over the name. Many other indications may be had in a similar manner. The card, it should be noted, may be filed in any of the open styles of indexing, of which there are several upon the market.

No plan will work successfully unless the telephone operator is a young woman of considerable ability and efficiency, and such, I take it, hospitals are anxious to employ. Furthermore, since the operator must be always prompt and efficient, her hours must not be so long that she loses alertness and cheerfulness.

Fig. 2. The card in use with information at operator's finger-tips.

VENEREAL DISEASE CONTROL

Hospital Care Is Both Necessary and Practical—Social Service an Important Element in Effecting Cures—Nation Must Make Up for Former Neglect

By C. C. PIERCE, Assistant Surgeon-General United States Public Health Service

VENEREAL diseases are communicable parasitic infections caused by identified organisms. Their modes of transmission are known and a practicable laboratory technic has been worked out for diagnosing each one of them. Recent methods of treatment have shortened the periods of infectivity and have improved the prospects of ultimate recovery.

These diseases form one of the most serious of all the public health problems and can best be handled from that angle. Nowhere in public health is the cooperative assistance of the hospital, the dispensary, and the laboratory of greater utility than in the control of these diseases.

Syphilis and gonorrhea are no more readily communicable than typhoid fever or pneumonia, and are more easily nursed. Precautions similar to those observed in the care of persons ill with typhoid fever will prevent the spread of gonorrhea, syphilis, and chancroid to other patients, nurses, and attendants.

The necessity of facilities for examination, diagnosis, and treatment, adequate isolation equipment, and a system of social service and follow-up have been put forward as financial reasons why hospitals could not take venereal diseases. As has been pointed out, the same facilities for examination, diagnosis, treatment, isolation, etc., needed for the care of the other communicable diseases, generally accepted by hospitals, are sufficient to care effectively for venereal diseases.

Few diseases have been so neglected, so deprived of the hospital treatment they need as gonorrhea, syphilis, and chancroid. Popular prejudice is probably responsible in a great measure for this neglect. The psychological effect on the patient who occupies a bed adjoining that of one infected with a venereal disease is not so much the fear of contracting the disease as a revulsion against the propinquity of a "bad disease," since "bad diseases" are contracted by those who indulge in sexual wrong-doing. Such people are, therefore, "bad people" and should not be allowed to occupy the same ward with persons infected with typhoid or pneumonia, regardless of their past history.

The hospitals must not only change their present attitude toward venereal diseases but, if they are to be modern hospitals, they must provide the very best men and the very best means for the diagnosis and treatment of venereal diseases, regardless of how these diseases were contracted.

The Government, through the Public Health Service, has proved that venereal diseases respond to early hospital treatment and that clinics and hospitals for this purpose are not failures, but feasible, and that these diseases can be cared for in general hospital wards without danger to other patients.

In June, 1918, the Congress of the United States

passed the Chamberlain-Kahn Bill which created the Division of Venereal Diseases in the Public Health Service.

Section 4 of this act provides that "The duties of the Division of Venereal Diseases shall be in accordance with rules and regulations prescribed by the Secretary of the Treasury (1) to study and investigate the cause, treatment, and prevention of venereal diseases; (2) to cooperate with State Boards of Health for the prevention and control of such diseases within the States; and (3) to control and prevent the spread of these diseases in interstate traffic; Provided, That nothing in this chapter shall be construed as limiting the functions and activities of other departments or bureaus in the prevention, control, and treatment of venereal diseases and in the expenditure of moneys therefor."[1]

The service has no intention of abandoning the movement against venereal disease with the conclusion of the war. It is planned to increase the number of clinics until every person in the United States infected with venereal disease may receive treatment regardless of his financial condition. Forty-two states have already complied with the regulations promulgated by the Secretary of the Treasury and have received their allotment of the Chamberlain-Kahn fund.

This allotment is to be expended along general standard lines in accordance with an accounting system to be forwarded by the Interdepartmental Social Hygiene Board approximately as follows: (1) for treatment of infected persons in hospitals, clinics, and other institutions, including arsphenamine and other drugs, 50 percent of the allotment; (2) in carrying out educational measures, 20 percent; (3) in carrying out repressive measures, 20 percent; and (4) in general administration and other activities of venereal disease control, 10 percent. (This distribution is provisional and subject to modification after conference and agreement between each state and the Public Health Service to meet best the needs of the particular state.)

The service stands ready at all times to cooperate and render assistance wherever possible through detail of employes, securing of arsphenamine, and providing literature for educational matters, etc.

The importance of social service among those infected with venereal disease is becoming increasingly apparent. It is planned to give a number of selected public health nurses a course of intensive training in medical social service with special reference to venereal disease control. It is well known that instruction concerning the dangers of venereal disease is much more effective and better received when given by qualified persons.

Education in sex hygiene should begin in the home and school before the child has reached the age of puberty.

In 1912 an army surgeon makes the following statement in an article printed in the *Military Surgeon:* "About one-third of the patients seeking free medical treatment at the free dispensaries of hospitals do so for venereal diseases, and yet the hospital and dispensary accommodations in the United States are notoriously inadequate. Morrow estimated the number of syphilitics in the United States at two million, and if the proportion between syphilitics and gonorrhea infections found by the statistics of the Committee of Seven in 1901 in New York City of near one to ten still obtains for the country at large, the number of sufferers from venereal diseases would reach the enormous numbers of nearly twenty million."

The registration of the men of the country for the first draft brought us face to face with the fact that 3 percent of the million draftees whose examination blanks first reached the Adjutant General's office in Washington had a venereal disease when they reported at camp.

This 3 percent came from civil life, came from communities where this notoriously inadequate hospital and dispensary accommodation condition obtained.

The hospitals and clinics of the country have a very important part to play in this campaign against venereal disease; without their hearty cooperation our program will be almost useless.

The dispensary or the out-patient service has a twofold responsibility: educational and treatment. The vast majority of venereally infected patients have an almost criminal ignorance as to the danger and seriousness of these infections. The dispensary should in a measure be a health center not alone for the treatment of the venereally infected but for the dissemination of knowledge concerning the prevention of these diseases.

Treatment should be standardized. Patients should be carefully instructed in all the details of the management of their cases. The antiquated method of giving a patient infected with gonorrhea a bottle of fluid for injection and the stereotyped advice to syringe three or four times a day should be abolished. Patients should be given a careful demonstration of the method of using the syringe; definite hours to use it; and explicit directions as to length of time the solutions must be retained. Rigid rules for cleanliness and the protection of their associates from infection must be instilled. Patients should be cautioned against

[1]For details of the work done throughout the country on the basis of this authority, see the article in the Dispensary and Out-Patient Department.

the dangers of latent gonorrhea and informed that the absence of the discharge does not signify cure.

A social service department is essential in a venereal disease clinic. The giving of arsphenamine seems to end the responsibility of most clinics treating syphilis and this is a common cause for failure. Unless patients are carefully followed up, advised of the necessity of further treatment, and encouraged to continue their visits to the clinic, time and money have been worse than wasted.

It is important that all sources of infection and contacts be sought for just as diligently as in the other communicable diseases. Every effort should be made both in the out-patient department and the hospital to remove the erroneous impression that every patient infected with a venereal disease is a "moral leper," since it is an established fact that many individuals are innocently infected.

Levity should have no place. Doctors and nurses should observe a professional dignity and a sympathetic understanding.

It has been repeatedly demonstrated that the spread of venereal disease can be controlled. The only essential lacking for the ultimate eradication of venereal disease is the will of the people. Just so soon as the people of the United States definitely decide that they want to eliminate the venereal diseases, these diseases are doomed.

STANDARDS FOR TUBERCULOSIS SANATORIUMS*

Location—Importance of Considering the Individual Patient—Standard of Efficiency—Necessity of Central Authority—Value of Sanatorium Records—The Records Used in Minnesota

By ROBINSON BOSWORTH, M.D., Executive Secretary, Advisory Commission, State Sanatorium for Consumptives, St. Paul, Minn.

EARLY in the campaign against tuberculosis, sanatoriums were constructed in different parts of the country for purposes which were somewhat different from the purposes for which the majority of such institutions are established today. In early times it was the favorable, or, as usually designated, "incipient" case for which institutional care was desired. Today it has been found wise to include as well, and in many cases give preference to, the more advanced and in some respects hopeless cases. This is proper, for not only should these latter be given every opportunity for recovery obtainable in the best conducted institutions, but provision should be made to permit acceptable isolation of infectious cases from others of the family group, especially the children.

With this introduction it is somewhat interesting and profitable to consider the changes necessary in the facilities offered by most sanatoriums in keeping pace with the changes in character of cases admitted.

LOCATION

Let us take up the matter of site or location first. I doubt whether there are great differences in opinion as to the proper location of a general hospital, provided it is well understood for what purposes a general hospital is established. But there seems to be a great difference of opinion when it comes to tuberculosis sanatoriums. We find them located miles from railroads and in many instances equally distant from any source of supply. It is somewhat difficult to conceive of the reason for this. At one time, possibly fear of institutions by communities might have had some influence, but surely not at this time; still there are many instances today in which sites selected for proposed institutions are just as badly chosen in this respect as the earlier ones. I know of a million-dollar sanatorium to be erected on property over a dozen miles from the nearest city.

One or two miles from town, preferably on a railroad or trolley is surely far enough. There are no advantages in greater distances comparable to the disadvantages. In addition to the increased cost and greater problems in construction, the administration is enormously handicapped by improper location. Employees are seldom given proper consideration during the planning of medium-sized tuberculosis sanatoriums, but with improper location we can guarantee that the administrative head will devote many weary hours to their problems which might have been avoided to a large degree if this question received the study and thought it deserves. Finally, the question of cost enters in so strongly that it

*This paper is the sixth in a series, by various authors, on the classes of special hospitals. The first, "Standards for a Children's Hospital," by Stafford McLean, appeared in May; the second, "The Standards of Hospital Education for Interns," by J. M. Baldy, in June; the third, "The Standardization of Hospitals for the Insane," by William C. Sandy, in July; the fourth, "Standardization of State Hospitals," by A. L. Bowen, in August; the fifth, "Institutions for the Care of Epileptics," by William T. Shanahan, in October.

APPLICATION BLANK

RIVERSIDE SANATORIUM,
Granite Falls, Minn.

Fill out carefully. Mail to the Sanatorium. Do not let patients come until sent for. Much trouble can be avoided by following these instructions carefully.

Date .....
Name of patient .....
Address ..... Township ..... County .....
How long resident of above County ..... yrs. Of State ..... yrs.
Age .....
Male or female .....
Free or pay case* .....
Stage of disease ..... Bacilli in sputum? .....
Highest daily temperature ..... Pulse ..... Respiration .....
Average weight last three years ..... lbs. Present weight ..... lbs.
Tuberculous complications .....
Non-tuberculous complications .....
Venereal diseases .....
Is patient willing to abide by rules of institution? .....

Signed .....
M. D.

*Note.—The regular charge for those from Chippewa, Lac qui Parle, Yellow Medicine and Renville counties is $7.00 per week, payable weekly or monthly in advance. For those unable to pay the full charge, provision is made whereby admission may be obtained by the payment of part of the weekly charge, or without charge upon recommendation of the County Sanatorium Commission by filling out the Financial Statement accompanying this application, which must be mailed to the Superintendent of the Sanatorium, Granite Falls, Minn.
For those from other counties the charge is $10.00 per week, payable in advance, or a written guarantee from the County Auditor, certifying that the county will pay the charges.

Fig. 1. Application blank for admission to sanatorium. Actual size, 8½ by 11 inches.

is indeed a stout-hearted board that will knowingly add so greatly to the constant year-by-year overhead expense.

There would be nothing gained in a prolonged discussion on the other points to be considered in connection with the site. To mention some of them should suffice:

Transportation Facilities.—Trackage for coal and other freight. Condition of roads.

Water Supply.—Source of, quality and quantity.

Site for Building Purposes.—Exposure, surroundings.

Character of Site for Building Purposes.—Grading needed, protection from prevailing winds in winter in northern climates, dust possibilities, proper ventilation.

Objectionable Surroundings.—Cemeteries, slaughterhouses, etc.

Purchase of Sufficient Property to Prevent Future Objectionable Surroundings.

Ice Supply, Electric Light, and Telephone Service.

SOCIAL CLASSES TO BE ADMITTED

A question which should arise in any consideration regarding the construction of public institutions for the care of the tuberculous is that of class or classes in the community the sanatorium is to serve.

There are those who view the tuberculosis problem as one confined largely to that class forced by necessity to appeal to the local officials for aid. Although there are many in this social class who should receive aid to obtain proper care for their tuberculous, it is well known that only a limited number voluntarily appeal to the officials. Partly because of this limited number of appeals, the local officials doubt the existence of any considerable tuberculosis problem.

However, the point I wish to make is that the tuberculosis problem of the community as a whole is not limited to this class, whether they appeal for aid or not. Any sanatorium established and maintained on a basis of supplying accommodations for this class alone is exceedingly narrow in its vision and in its ambition, and will of course fail to solve in any great degree the tuberculosis problem of a community. It will never reach far enough to be of any considerable value to the community—it may be for the particular class it serves, but even here its usefulness is often impaired by the reputation it is likely to have as one for the "protection of the public" and not primarily for the benefit of the individual as it should be. For the same reason such an institution never obtains active public support—its field is too small—not in its opportunities but in its "pull" on all classes from whom support should come.

It should be a first principle that a tuberculosis sanatorium should offer much of real personal value to the individual admitted in addition to

FINANCIAL STATEMENT

(To be filled out for patients unable to pay seven dollars a week for their care in the Sanatorium.)

This certifies that ..... is unable to pay more than ..... dollars a week for care and maintenance at the Sanatorium ..... relatives are unable to do so for ....., as shown by the following

	Name	Address	Occupation	Deposit with	Weekly Income
Wife or Husband					
Father					
Mother					
Brother					
Sister					
Children					

Landlord or Agent ..... Rent per month .....
Employers .....
Previous public relief .....
Previous private relief .....
Patient's property and income ..... Debts .....
I hereby certify that I will pay ..... dollars per week for the care of the above patient.
Witness ..... (Signed) .....
Date .....

(This information is strictly confidential. This blank when filled out should be mailed to the Superintendent of the Sanatorium.)

Fig. 2. Financial statement to be filled out for patients unable to pay seven dollars a week. Actual size, 8½ by 11 inches.

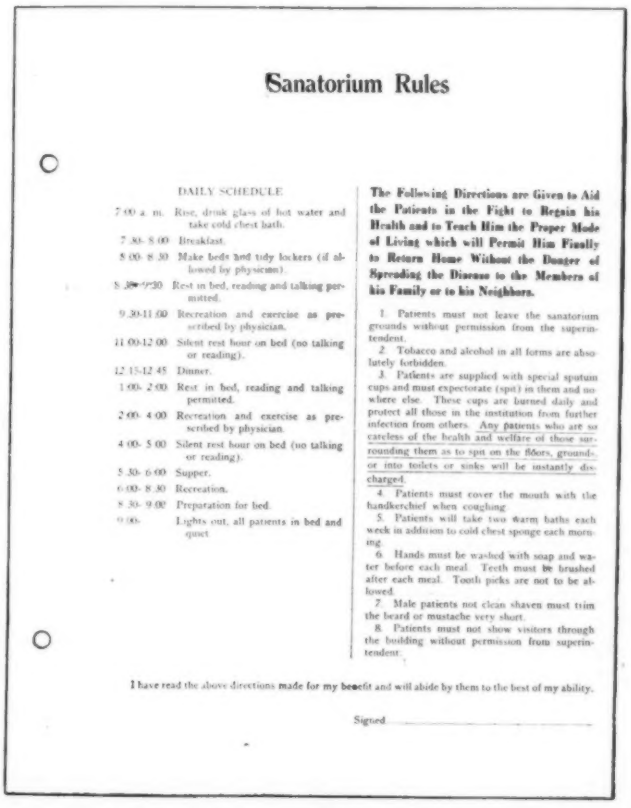
affording a proper place for one to go in order to protect others of the family group from infection. It is somewhat difficult to persuade one to enter a public institution almost solely for the protection of the public.

If sanatoriums are necessary or desirable to make a successful fight against tuberculosis, they should be built and maintained with such a standard of service supplied as to enable them to reach all classes in the community which they serve. It is an error to provide general hospital accommodations solely for the "down-and-out" class in a community. It is a greater error to reach only this class with a tuberculosis sanatorium if it is supposed to represent a consistent effort to control the incidence of tuberculosis.

HOSPITAL PROVISIONS IN SANATORIUMS

To be prepared to serve efficiently the tuberculous of a community, a sanatorium must afford accommodations for really sick patients—sick as judged by the standard of a general hospital and just as much entitled to the accommodations and nursing and medical care as general hospital cases. It is here that so many tuberculosis sanatoriums fail in their duty to the public. They still offer the armamentarium of the original sanatoriums for early cases.

In planning sanatoriums it must be realized that not all early cases remain early or favorable cases; that accidents happen and complications develop even in this group of cases, and that under these conditions real hospital service is demanded for the best interests of the patient.



Sanatorium Rules

DAILY SCHEDULE

7:00 a. m.	Rise, drink glass of hot water and take cold chest bath.
7:30- 8:00	Breakfast.
8:00- 8:30	Make beds and tidy lockers (if allowed by physician).
8:30- 9:30	Rest in bed, reading and talking permitted.
9:30-11:00	Recreation and exercise as prescribed by physician.
11:00-12:00	Silent rest hour on bed (no talking or reading).
12:15-12:45	Dinner.
1:00- 2:00	Rest in bed, reading and talking permitted.
2:00- 4:00	Recreation and exercise as prescribed by physician.
4:00- 5:00	Silent rest hour on bed (no talking or reading).
5:30- 6:00	Supper.
6:00- 8:30	Recreation.
8:30- 9:00	Preparation for bed.
9:00-	Lights out, all patients in bed and quiet.

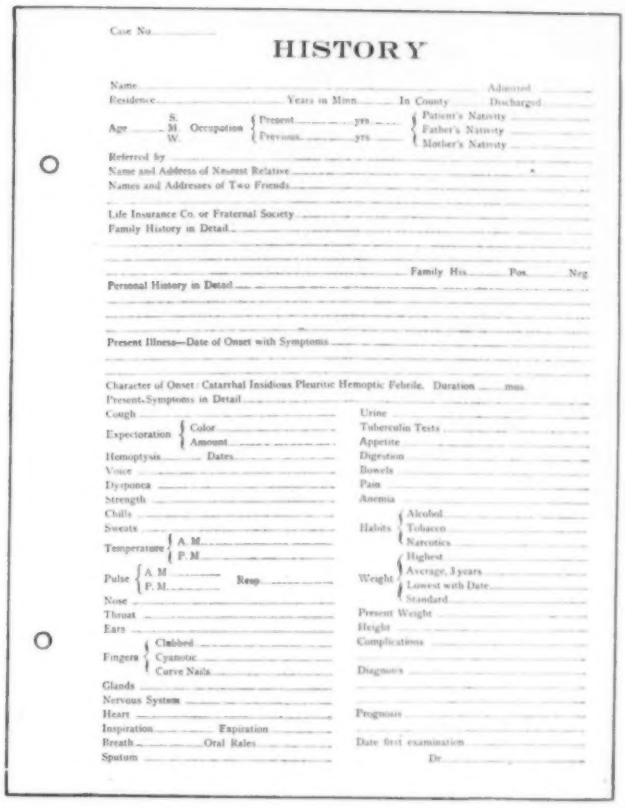
The Following Directions are Given to Aid the Patients in the Fight to Regain his Health and to Teach Him the Proper Mode of Living which will Permit Him Finally to Return Home Without the Danger of Spreading the Disease to the Members of his Family or to his Neighbors.

1. Patients must not leave the sanatorium grounds without permission from the superintendent.
2. Tobacco and alcohol in all forms are absolutely forbidden.
3. Patients are supplied with special sputum cups and must expectorate (spit) in them and nowhere else. These cups are burned daily and protect all those in the institution from further infection from others. Any patients who are so careless of the health and welfare of those surrounding them as to spit on the floors, grounds, or into toilets or sinks will be instantly discharged.
4. Patients must cover the mouth with the handkerchief when coughing.
5. Patients will take two warm baths each week in addition to cold chest sponge each morning.
6. Hands must be washed with soap and water before each meal. Teeth must be brushed after each meal. Tooth picks are not to be allowed.
7. Male patients not clean shaven must trim the beard or mustache very short.
8. Patients must not show visitors through the building without permission from superintendent.

I have read the above directions made for my benefit and will abide by them to the best of my ability.

Signed .....

Fig. 3. Sanatorium rules, to be read and signed by patient. Actual size, 8½ by 11 inches.



Case No. .....

HISTORY

Name ..... Admitted .....
Residence ..... Years in Minn. ..... In County ..... Discharged .....
Age ..... S. M. W. Occupation { Present ..... yrs. ..... Previous ..... yrs. ..... { Patient's Nativity ..... Father's Nativity ..... Mother's Nativity .....
Referred by .....
Name and Address of Nearest Relative .....
Names and Addresses of Two Friends .....
Life Insurance Co. or Fraternal Society .....
Family History in Detail .....
Family His. ..... Pos. ..... Neg.
Personal History in Detail .....
Present Illness—Date of Onset with Symptoms .....
Character of Onset: Catarrhal Insidious Pleuritic Hemoptic Febrile. Duration ..... mos.
Present-Symptoms in Detail .....
Cough .....
Expectoration { Color ..... Amount .....
Hemoptysis ..... Dates .....
Voice .....
Dyspnea .....
Strength .....
Chills .....
Sweats .....
Temperature { A. M. ..... P. M. .....
Pulse { A. M. ..... P. M. ..... Resp. .....
Nose .....
Throat .....
Ears .....
Fingers { Clubbed ..... Cyanotic ..... Curve Nails .....
Glands .....
Nervous System .....
Heart .....
Inspiration ..... Expiration .....
Breath ..... Oral Rales .....
Sputum .....
Urine .....
Tuberculin Tests .....
Appetite .....
Digestion .....
Bowels .....
Pain .....
Anemia .....
Habits { Alcohol ..... Tobacco ..... Narcotics .....
Weight { Highest ..... Average, 3 years ..... Lowest with Date ..... Standard .....
Present Weight .....
Height .....
Complications .....
Diagnosis .....
Prognosis .....
Date first examination .....
Dr. .....

Fig. 4. Patient's history blank. Actual size, 8½ by 11 inches.

In the Minnesota system of county sanatoriums a minimum of 20 percent of the total capacity of each institution is provided for in rooms, single and double, to permit of such isolation as may be wise during emergencies, rapidly advancing disease and death. It has been our endeavor to provide treatment rooms well equipped, utility rooms and nursing equipment, diet kitchens, etc., to assist in the proper care of this type of case which is not usually included in the equipment of the earlier sanatoriums.

In caring for all stages of tuberculosis there are those who can apparently do well with accommodations such as the lean-to type of building affords. In the northern climate, however, a small proportion only of the total capacity of the institution should be so housed.

It is the experience of most sanatoriums that too great capacity is provided for the ambulant cases and too little for the bed cases. A plan which affords the maximum number of beds which can be used for either bed or ambulant patients is the ideal. This has been very well accomplished in the Minnesota sanatoriums by the use of small instead of large wards which are enclosed in glass and heated. Even if all single

and double rooms are occupied, bed cases in these small wards can be perfectly handled in the coldest weather by closing some or all of the windows and turning on the heat during meals or at other special times. These wards are so arranged that they are ventilated from three sides thus making them as comfortable as porches in summer weather.

Rest is probably the most important one agent at our disposal for the treatment of active tuberculosis, but it should be rest with comfort. It is not always the coldest exposure which contains the greatest virtue.

It is of the utmost importance to consider the

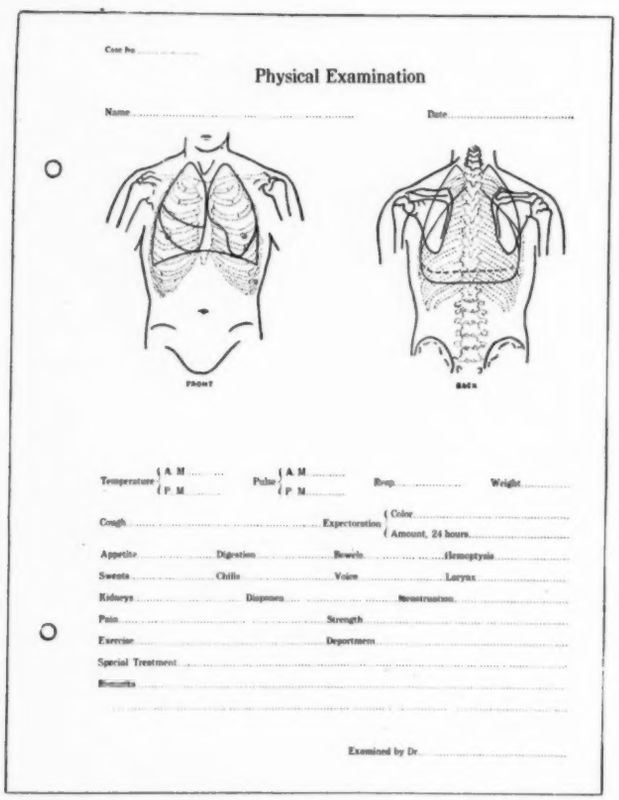


Fig. 5. Form upon which results of entrance examination are reported, as well as subsequent monthly examinations. Actual size, 8½ by 11 inches.

value of small wards and rooms from the point of view of the patient. Patients who are objectionable because of their advanced disease or other reasons should not be placed in wards with others. The lack of ability to segregate such patients is given as one of two reasons why 35 percent of all cases admitted into county sanatoriums in one state returned to their homes in less than thirty days. It may be urged that the expense of providing the proper number of rooms for such cases will be too great. We answer that by asking of what value thirty days or less treatment is to patients who might otherwise be kept several months.

In this group of institutions in which 35 percent left within thirty days we find that 72 percent left within ninety days. In eight Minnesota county sanatoriums for which we have data 18.5 percent left within thirty days, and 40 percent in ninety days—in other words, 60 percent remained in the institutions longer than three months. This is a pretty fair record, considering that these discharged cases included all those who

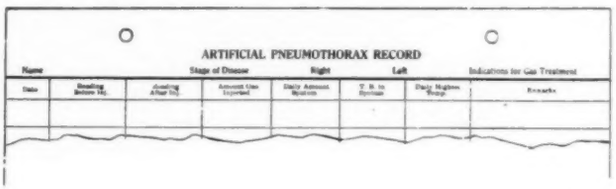


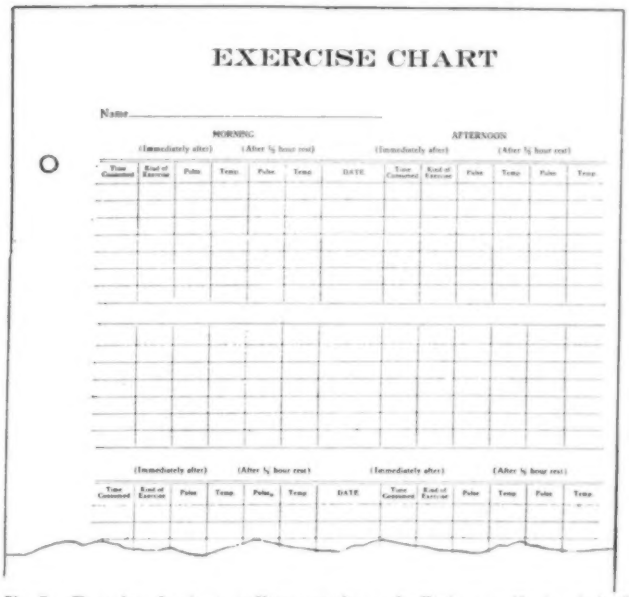
Fig. 6. Artificial pneumothorax record of patient. Actual size, 8½ by 11 inches.

died in the thirty-day period, and, as preference by law is given to the far-advanced cases, many deaths occur in the first few weeks of sanatorium residence.

The value of an institution treating tuberculosis patients for short periods is small unless one believes that patients can be rapidly instructed in matters pertaining to prevention and cure, so as to permit of their safe return to their homes. Whether or not this can be done, unfortunately those institutions which lose their cases after short residence do not as a rule attempt to instruct or succeed in instructing their patients properly or well. The value of sanatoriums as a means whereby control of the patient is obtained over a period of time sufficient to permit of permanent improvement is rarely conveyed to the mind of the average patient. Not only should the patient be convinced of this fact, but every effort should be made to induce the patient to remain many months. This can be accomplished only through proper instructive lectures to the assembled patients by members of the staff and through the avoidance of discontent, homesickness, and monotony by an active administration. Patients should be provided with occupation, and that does not mean farming necessarily, but the many harmless mind-relieving what-nots possible everywhere if those in charge only give the subject the time and thought it deserves. In the majority of sanatoriums practically nothing is being done to overcome the monotonous existence which sooner or later results in the opinion on the part of the patient that sanatorium care is nothing but a housing proposition with fresh air added. This they can get at home. An active administration will do things for the benefit of the mental as well as the physical side of the patient.

STANDARDS OF EFFICIENCY

In order to accomplish results for the individual case a high standard of efficiency must be maintained. There is a strong tendency to overlook the importance of such standards, and to rely upon untrained and inexperienced staff and employees who are not only incapable of maintaining a high degree of efficiency but in many instances unable to recognize it when they see it. I quote:


EXERCISE CHART

Name

MORNING (Immediately after) (After ½ hour rest)

AFTERNOON (Immediately after) (After ½ hour rest)

Time Commenced | Kind of Exercise | Pulse | Temp. | Pulse | Temp. | DATE | Time Commenced | Kind of Exercise | Pulse | Temp. | Pulse | Temp.

Fig. 7. Exercise chart, recording exercise and effect on patient. Actual size, 8½ by 11 inches.

Nursing management is in many instances sadly deficient. Charts kept by nurses were often both untidy in appearance and carelessly kept. The details of the nursing care of bed patients were usually neglected—such as attention to patients' hair, food trays, condition of bed side tables, appearance of rooms, cleanliness of bed side tables, and matters concerning the personal comfort of patients. In many instances the nurses obviously did not understand the institutional management of patients.

TRAINING SCHOOL FOR NURSES

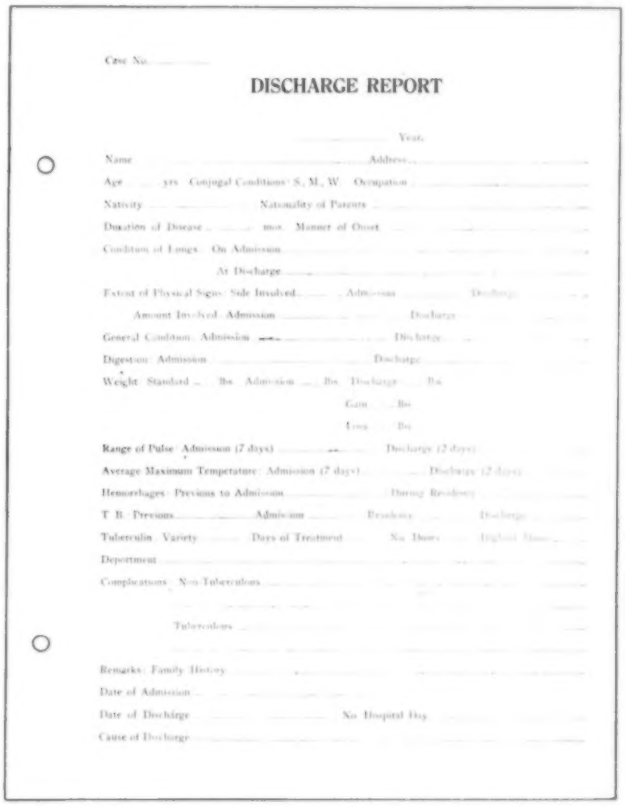
In this connection it is well to consider the responsibilities of large tuberculosis sanatoriums in connection with the training of nurses for tuberculosis service. Particularly at this time, when the entire nursing corps is being rapidly depleted by war demands, those institutions capable of giving competent instruction should establish training schools for nurses, accepting as applicants former patients with arrested disease. Under present conditions it becomes a duty as well as a privilege.

NURSING STANDARDS

An institution caring for all stages of pulmonary tuberculosis should maintain one nurse for every ten patients. This figure will vary somewhat according to the percentage of bed cases. It is rarely advisable or necessary to employ only graduate nurses for sanatorium work. With proper direction most valuable service can be obtained from those who for one reason or another have failed to complete their training. In addition to these, certainly graduates of special courses in tuberculosis sanatoriums can be relied upon—in many instances furnishing more satisfactory service than graduate nurses from general hospitals without special instruction or experience in tuberculosis nursing.

MEDICAL SERVICE

It should be insisted that those physicians in charge of the medical service in sanatoriums be full-time men specially trained in this important


Case No.

DISCHARGE REPORT

Year.

Name Address

Age yrs Conjugal Conditions S., M., W. Occupation

Nativity Nationality of Parents

Duration of Disease mos. Manner of Onset

Condition of Lungs On Admission

At Discharge

Extent of Physical Signs Side Involved Admission Discharge

Amount Involved Admission Discharge

General Condition Admission Discharge

Digestion Admission Discharge

Weight Standard lbs. Admission lbs. Discharge lbs.

Gain lbs.

Loss lbs.

Range of Pulse Admission (7 days) Discharge (7 days)

Average Maximum Temperature Admission (7 days) Discharge (7 days)

Hemorrhages Previous to Admission During Residence

T. B. Previous Admission Residence Discharge

Tuberculin Variety Days of Treatment No. Doses Highest Dose

Department

Complications Non-Tuberculous

Tuberculous

Remarks Family History

Date of Admission

Date of Discharge No. Hospital Days

Cause of Discharge

Fig. 8. Discharge report. Actual size, 8½ by 11 inches.

work. Much is written upon the subject of early diagnosis, its importance, etc., and still communities will place the medical affairs of these sanatoriums in the hands of those with no special training or fitness to hold such positions. The sanatorium should be the medical center of a community so far as tuberculosis is concerned, and the superintendent or medical director should be in a position to advise and assist the general medical profession on this subject.

The lack of proper medical supervision concerns the patients vitally. To quote:

> The lack of resident physicians and the resulting lack of medical attention such as most of the patients deem necessary cause dissatisfaction from the very outset of

SUMMARY FOR YEAR ENDING________

Classified According to — I. All Patients who Stayed over 30 Days

LESION	SYMPTOMS A	B	C	Turban	Sputum	Cases*	App. Cure	Arrested	App. Arr.	Quiescent	Impr.	Prog.	Died	Av'rage Residence Weeks
Incipient				I	O									
				I	†									
					*									
				‡										
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
TOTAL														

NOTE—* = No sputum report available.
‡ = No turban classification.
Cases not reported, owing to lack of information.

II. Time of Residence for All Cases

CLASS	Cases	15 Days or Less	15 to 30 Days	1 Month to 3 Months	3 Months to 6 Months	6 Months to 9 Months	9 Months to 12 Months	12 Months and more	Average Residence Days
Incipient									
Moderately Advanced									
Far Advanced									
TOTAL									

III. Conditions of Sputum (Positive or Negative) for All Discharged

CLASS	Cases		Apparently Cured	Arrested	Apparently Arrested	Quiescent	Improved	Prog.
Incipient		Pos.						
		Neg.						
Moderately Advanced		Pos.						
		Neg.						
Far Advanced		Pos.						
		Neg.						
TOTAL		Pos.						
		Neg.						

(Report here Non-tuberculous cases and forms of tuberculosis not pulmonary)

IV. Results of Sputum Examinations

CLASS	Extent of physical Signs According to Turban	Cases	TREATMENT	A R D † † †	A R D † † O	A R D † O †	A R D † O O	A R D O † †	A R D O O †	A R D O † O	A R D O O O	P A R D † O O O
Incipient	I		Without tuberculin									
	I		Tuberculin over 90 days									
	I		Tuberculin 90 days or less									
Moderately Advanced	I		Without tuberculin									
	I		Tuberculin over 90 days									
	I		Tuberculin 90 days or less									
	II		Without tuberculin									
	II		Tuberculin over 90 days									
	II		Tuberculin 90 days or less									
	III		Without tuberculin									
	III		Tuberculin over 90 days									
	III		Tuberculin 90 days or less									
	‡		Without tuberculin									
	‡		Tuberculin over 90 days									
	‡		Tuberculin 90 days or less									
Far Advanced	I		Without tuberculin									
	I		Tuberculin over 90 days									
	I		Tuberculin 90 days or less									
	II		Without tuberculin									
	II		Tuberculin over 90 days									
	II		Tuberculin 90 days or less									
	III		Without tuberculin									
	III		Tuberculin over 90 days									
	III		Tuberculin 90 days or less									
	‡		Without tuberculin									
	‡		Tuberculin over 90 days									
	‡		Tuberculin 90 days or less									

NOTE

O = Tubercle bacilli absent.
† = Present.
A = Admission.
R = During residence.
D = On discharge.
P = Previous to admission.
‡ = No turban classification.

When T. B. were present on admission, no note is made with regard to previous examinations. When T. B. were present previous to admission, and also at any time during residence, they are marked as present on admission.

Classified According to — V. All Patients who Took Tuberculin over 90 Days

LESION	SYMPTOMS A	B	C	Turban	Sputum	Cases	App. Cure	Arrested	App. Arr.	Quiescent	Impr.	Prog.	Died	Av'rage Residence Weeks
Incipient				I	O									
				I	†									
					*									
				‡										
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
TOTAL														

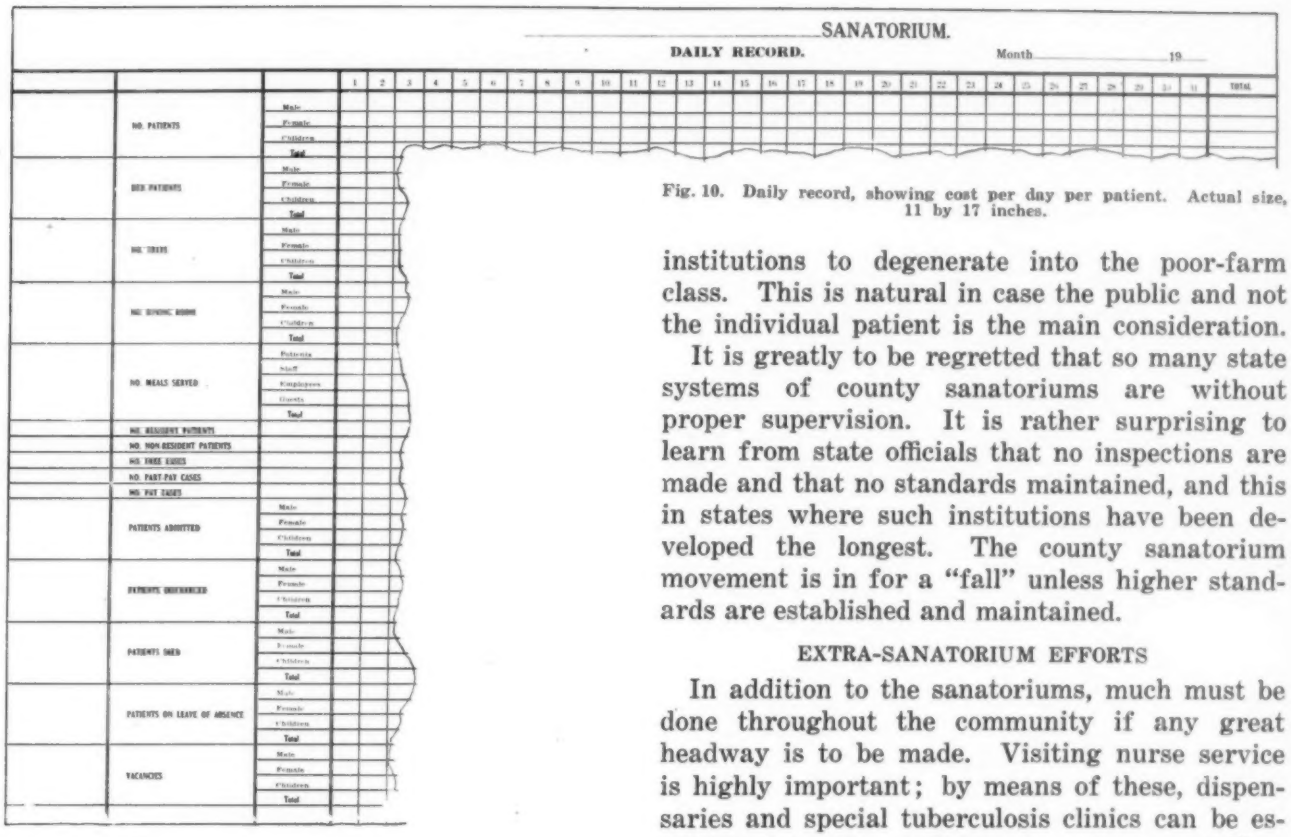
NOTE—* = No sputum report available.
‡ = No turban classification.
Cases not reported, owing to lack of information.

Classified According to — VI. All Patients who Took Tuberculin 90 Days or Less

LESION	SYMPTOMS A	B	C	Turban	Sputum	Cases	App. Cure	Arrested	App. Arr.	Quiescent	Impr.	Prog.	Died	Av'rage Residence Weeks
Incipient				I	O									
				I	†									
					*									
				‡										
Moderately Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
Far Advanced				I	O									
				I	†									
				II	O									
				II	†									
				III	O									
				III	†									
					*									
				‡										
TOTAL														

NOTE—* = No sputum report available.
‡ = No turban classification.
Cases not reported, owing to lack of information.

Fig. 9. Annual medical report of sanatorium. Actual size, 11 by 17 inches.


SANATORIUM.

DAILY RECORD. Month 19

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL
	NO. PATIENTS	Male																																
		Female																																
		Children																																
		Total																																
	BED PATIENTS	Male																																
		Female																																
		Children																																
		Total																																
	NO. CRIBS	Male																																
		Female																																
		Children																																
		Total																																
	NO. DINING ROOM	Male																																
		Female																																
		Children																																
		Total																																
	NO. MEALS SERVED	Patients																																
		Staff																																
		Employees																																
		Guests																																
		Total																																
	NO. RESIDENT PATIENTS																																	
	NO. NON-RESIDENT PATIENTS																																	
	NO. FREE CASES																																	
	NO. PART PAY CASES																																	
	NO. PAY CASES																																	
	PATIENTS ADMITTED	Male																																
		Female																																
		Children																																
		Total																																
	PATIENTS DISCHARGED	Male																																
		Female																																
		Children																																
		Total																																
	PATIENTS DIED	Male																																
		Female																																
		Children																																
		Total																																
	PATIENTS ON LEAVE OF ABSENCE	Male																																
		Female																																
		Children																																
		Total																																
	VACANCIES	Male																																
		Female																																
		Children																																
		Total																																

Fig. 10. Daily record, showing cost per day per patient. Actual size, 11 by 17 inches.

residence in the institution. Five institutions with a total of 322 beds (average of 64 for a sanatorium) have no resident physicians.

It seems that the usual method of providing medical service for a county sanatorium is to engage the nearest general practitioner to make regular or irregular visits to the patients. Is this satisfactory? If the patients can be induced to stand for it and the function of the institution is solely for the protection of the public and not for the benefit of the individual patient, then the visiting physician may get by with it. The only good feature of such an arrangement is the remote possibility that the physician may develop sufficient interest in the subject of tuberculosis, its diagnosis, and treatment, to enable him to develop his abilities to the further interests of the public.

CENTRAL AUTHORITY

In any system of sanatoriums, if the word "system" is to be used relative to construction features and management, there must be some central authority. Some sanatoriums undoubtedly would be most efficiently conducted without state supervision—others would not. Indeed, it would be most surprising if some institutions were not improperly conducted, considering the view held by many sanatorium commissions relative to the purposes of these institutions. There is a strong tendency for small and medium-sized institutions to degenerate into the poor-farm class. This is natural in case the public and not the individual patient is the main consideration.

It is greatly to be regretted that so many state systems of county sanatoriums are without proper supervision. It is rather surprising to learn from state officials that no inspections are made and that no standards maintained, and this in states where such institutions have been developed the longest. The county sanatorium movement is in for a "fall" unless higher standards are established and maintained.

EXTRA-SANATORIUM EFFORTS

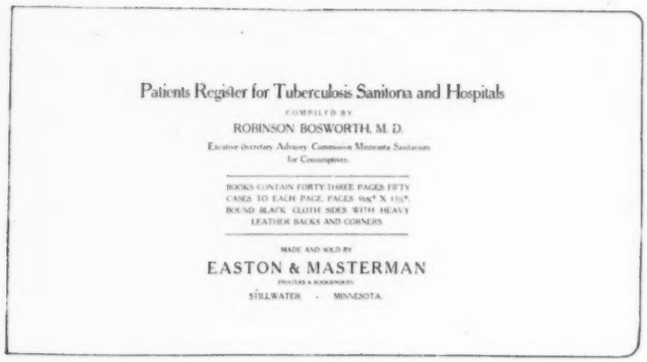
In addition to the sanatoriums, much must be done throughout the community if any great headway is to be made. Visiting nurse service is highly important; by means of these, dispensaries and special tuberculosis clinics can be established in the smallest of rural communities. In rural districts, as a rule, people are not in the

SANATORIUM.

FINANCIAL REPORT. Month of 19

				TOTAL $
Administration	Salaries and Services			
	Office Expenses			
	Stationery and Printing			
	Postage, Telephone and Telegraph			
	Miscellaneous			
	TOTAL			
Care of Patients	Salaries and Services			
	Medical Supplies			
	Clothes and Blankets			
	Drugs			
	Miscellaneous			
	TOTAL			
Culinary	Salaries and Services			
	Provisions			
	TOTAL			
Domestic	Salaries and Services			
	Laundry and Household Supplies			
	Miscellaneous			
	TOTAL			
Agriculture, Engineering, Buildings and Grounds	Salaries and Services			
	Fuel			
	Supplies			
	Seed and Fertilizers			
	Repairs			
	Miscellaneous			
	TOTAL			
Traveling Expenses				
Sanatorium Commission Expenses				
Insurance				
	TOTAL			
				Total Maintenance Expense $
Increase to Inventory	Furniture and Furnishings			
	Tools, Implements and Machinery			
	Vehicles			
	Live Stock			
	Miscellaneous			
	TOTAL			
Lasting Improvements	Buildings and Additions			
	Lands Grading and Fencing			
	Mechanical Equipment			
	Sewer and Water			
	Miscellaneous			
	TOTAL			
				Grand Total $

Fig. 11. Financial report to state or local authorities. Actual size, 11 by 17 inches.


Patients Register for Tuberculosis Sanitoria and Hospitals
COMPILED BY
ROBINSON BOSWORTH, M. D.
Executive Secretary Advisory Commission Minnesota Sanitarium for Consumptives.
BOOKS CONTAIN FORTY-THREE PAGES FIFTY CASES TO EACH PAGE. PAGES 10½" X 15½". BOUND BLACK CLOTH SIDES WITH HEAVY LEATHER BACKS AND CORNERS.
MADE AND SOLD BY
EASTON & MASTERMAN
STILLWATER - MINNESOTA.

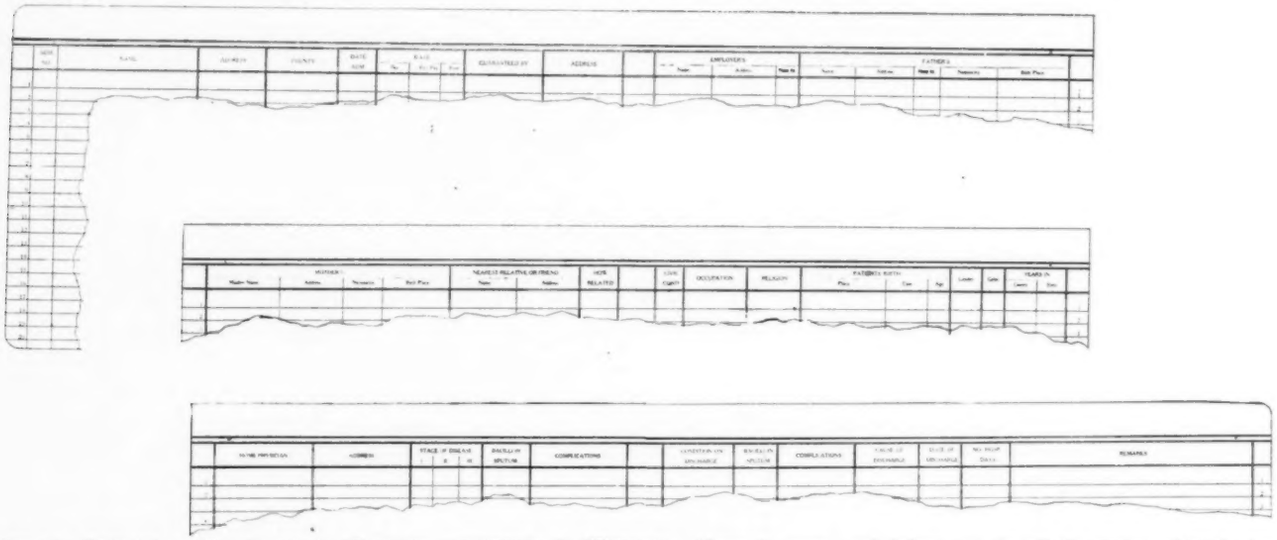


Fig. 12. Patients' register in use in all county sanatoriums in Minnesota. Above is cover, and below are six of the pages. Actual size, 7½ by 14 inches.

habit of going away from their homes when they are sick, and the establishment of a sanatorium in itself is not going to persuade these people to go there for treatment. When a majority of the tuberculous in rural districts are not even under medical supervision, special efforts must be instituted to reach them, have them examined, classified, and advised as to sanatorium or other care. In this effort the sanatorium must closely cooperate.

FOLLOW-UP WORK

By means of the dispensary nurse and physician a follow-up system worth while can be established, reaching discharged cases from state sanatoriums as well as from the county institutions. State sanatoriums should be conducted in close cooperation with county institutions. When a patient leaves the state sanatorium notice should be sent at once to the county institution in order that the follow-up work may be started immediately. By these means many releases may be avoided and money spent by the state and county saved from waste. An annual physical examination should be made by the dispensary physician and results reported to the state or county institution, as the case may be.

SANATORIUM RECORDS

Because of the fact that some sanatoriums keep no records of temperature, pulse, weight, and other important data, it would appear that there is a strong demand for a standard recording system which can be introduced in each institution in a state, not only making it possible to have records properly kept, but making them uniform throughout.

The value of the set of sanatorium records here shown lies not in their superiority over other forms, but in their use by all of the county sanatoriums of a group, thus permitting the same data to be gathered and kept regarding each patient.

The illustrations to this article give a complete set of the records used in the Granite Falls, Minnesota, Sanatorium for Consumptives, with the exception of the laboratory report, the temperature chart, the bedside record, and the weight chart, which are also used.

The laboratory chart, 8½ by 11 inches, under the heading "Urinalysis," has space for noting date, amount for twenty-four hours, color, transparency, reaction, specific gravity, urea albumen, sugar, bile, diazo reaction, and microscopical examination; under "Sputum," space for date, amount for twenty-four hours, character, tubercle bacilli (number, shape—long, short, beaded, etc.), other micro-organisms, elastic fibers, and blood; under "Blood," room for general remarks. The temperature chart, 8½ by 11 inches, permits records for thirty-one days, thus giving each patient in the institution a new chart on the first of each month. The bedside record is a ruled sheet, also 8½ by 11 inches, and upon it are noted special medications or treatments not possible to record on the regular temperature chart. Each patient's

correct standard weight is estimated on the basis of height and age at the time of admission, and his gain and loss are represented graphically upon a weight chart 8½ by 11 inches.

MEDICAL RECORDS—ANNUAL MEDICAL REPORTS

It would be of great assistance to those connected with tuberculosis sanatoriums if annual medical reports included the same data and could be procured from the several institutions. Recently we addressed communications to a large number of tuberculosis sanatoriums, of medium and small size, requesting medical reports for any period of twelve months. With a very few exceptions, we were unable to obtain any such reports, and those received contained such data that it was almost impossible to compare them.

There is much that should be included in the report other than the number of cases admitted and discharged in the several stages of tuberculosis and the results of treatment during the twelve months period. The least that a medical report should contain is information (regarding all patients under treatment for thirty days or longer) relative to lesion (incipient, moderately

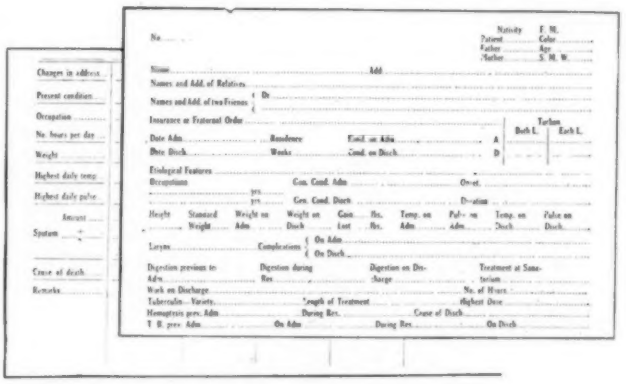


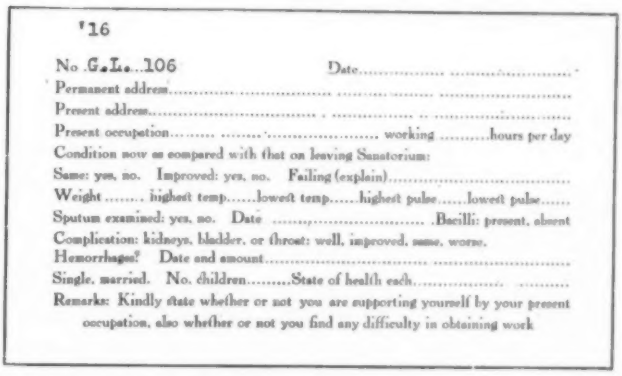
Fig. 13. Card giving data concerning each case discharged from any of the sanatoriums, which is on file in the offices of the Advisory Commission. Below is shown the reverse side of the card upon which are noted data received from ex-patients during years subsequent to their discharge. Actual size, 4 by 6 inches.

advanced or far advanced), the symptoms (A, B, and C) as classified by Rathbun's modification of the National Association classification, the Turban classification (I, II, and III), sputum (negative or positive), and the results of treatment, together with the average length of residence. Reports should also show the time of residence for all cases, classified according to the stage of the disease, showing the number discharged at the end of certain periods, such as fifteen days, fifteen to thirty days, one to three months, etc. As stated before, it is rather startling to ascertain the number discharged in less than thirty days. The condition of the sputum on admission and on discharge should be reported on for the different stages of the disease and for those taking tuberculin, etc. If the records of individual cases are properly kept, a report containing the data required in filling out the form (Fig. 9) should be a simple matter for all institutions.

FINANCIAL RECORDS

A system of accounting should be installed in all sanatoriums, permitting of such a division of the maintenance accounts as will show the cost of running each department of the institution. The financial records should be standardized for all institutions operating as part of a state system, in order that there may be no confusion due to a number of systems and in order to permit of proper comparisons being made. It is well to divide the accounts and charge the proper items to the following departments: (1) Administration; (2) Care of Patients; (3) Culinary; (4) Domestic; (5) Agriculture, Engineering, Buildings, and Grounds; (6) Traveling Expenses, Sanatorium Commission Expenses, Insurance; (7) Increase to Inventory; (8) Lasting Improvements, each department further subdivided into salaries, services, etc.

When such a report has been made covering a month's expenditure, a very simple financial report can be compiled for submission to local or state authorities, by the use of the form here shown, headed "Financial Report" (Fig. 11). It will be noted that the expenditures are classified into "Maintenance Expenses" and those chargable to "Increase to Inventory" and "Lasting Improvements." A summary is provided at the


'16

No. G.L.. 106 Date.....

Permanent address.....

Present address.....

Present occupation..... working .....hours per day

Condition now as compared with that on leaving Sanatorium:

Same: yes, no. Improved: yes, no. Failing (explain).....

Weight ..... highest temp.....lowest temp.....highest pulse.....lowest pulse.....

Sputum examined: yes, no. Date ..... Bacilli: present, absent

Complication: kidneys, bladder, or throat: well, improved, same, worse.

Hemorrhage? Date and amount.....

Single, married. No. children.....State of health each.....

Remarks: Kindly state whether or not you are supporting yourself by your present occupation, also whether or not you find any difficulty in obtaining work

Fig. 14. Card filled out by former patients showing condition years after discharge from institution. Actual size, 3¼ by 5½ inches.

bottom of the report which shows the number of patient days, and from that the cost per day per patient, and the cost of meals (raw food) and the total culinary expense per meal per patient, and finally the net cost to the community after all receipts have been accounted for. Needless to say, in order to compute the cost per day, a daily record must be kept showing the total population of the institution. A loose leaf form such

as the one illustrated (Fig. 10) has been found entirely satisfactory.

If patients are admitted into sanatoriums from counties not maintaining the institution and if some patients are free and others pay, the form permits of daily records being kept of these facts as well as the number of patients on leave of absence, deaths, etc., etc.

Likewise a standard "Patients' Register" should be compiled for use in any given system of institutions. Information desired may vary in the different states. Sample pages are shown here (Fig. 12) illustrating the register in use in all county sanatoriums in Minnesota. Reference to this register usually enables one to fill out properly insurance papers, death certificates, etc., without having recourse to the other records of the case.

DATA CONCERNING DISCHARGED CASES

In order that valuable information relative to the accomplishments of sanatorium care of the tuberculous may be obtained other than that shown by the annual death rate, the Advisory Commission has on file in its St. Paul office a card (Fig. 13) giving data obtained and submitted upon the discharge of each case from all institutions caring for the tuberculous. It has been customary to address communications to each discharged patient during subsequent years to learn present conditions, ability in self-support, etc. The card upon which the data is obtained is also shown (Figures 13 and 14). Much valuable information is obtained from these discharged patients—many of them write letters of unusual interest bearing on their institutional experience and their efforts to maintain themselves in after years.

After a period of years a statistical study will be made showing the percentage of living cases, etc. The card upon which the data are obtained is in showing the permanent results of sanatorium treatment.

INDIRECT LIGHTING FIXTURE FOR PATIENT'S BED

One Fixture Serves as Reading Lamp, Night Light, and General Illumination—Easy to Operate and Care For

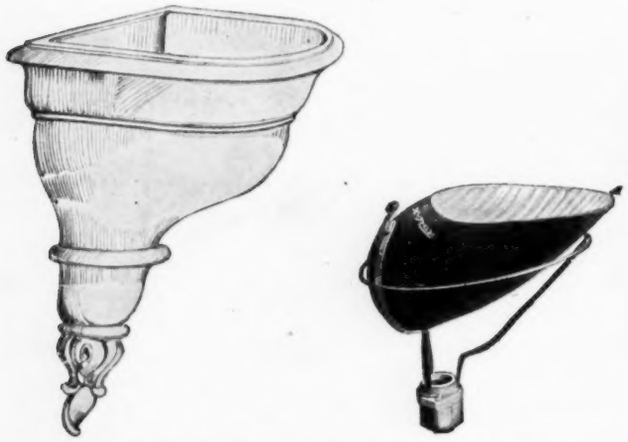
By H. V. PETTIT, Superintendent, Ottawa Tuberculosis Colony, Ottawa, Ill.

The accompanying illustration shows a light fixture which produces the best possible light for hospital use. The larger object in the illustration is the fixture which is attached to the wall; the smaller is the reflector which sits down into the large fixture, holds the light, and throws the beams upward against the ceiling.

The fixture is hung on the side wall about two feet above the head of the patient's bed. With this arrangement the patient is looking away from the light, which is a decided advantage; at the same time he has the benefit of an indirect lighting system of sufficient intensity to make an ideal reading light. For patients who wish a dim light, there is an arrangement by which it can be secured by turning a switch.

The silver-mirrored reflector is the factor which makes the wall bracket lighting so successful. It is corrugated, and directs the light from the bracket entirely to the ceiling with the illumination concentrated directly over the head of the bed.

The fixture has the following advantages: (1) it absolutely prevents glare from the light shining into the patient's eyes; (2) it eliminates the necessity for covering the lighting fixture with newspaper or cloth to get a subdued light; (3) it is easy to keep clean and can be furnished with a glass dust cover, making the unit entirely sanitary.



X-ray indirect lighting fixture and the reflector which goes inside.

WHERE OUR WOUNDED ARE CARED FOR

American Soldiers Receive Splendid Treatment During Period of Recuperation in British Hospitals

The accompanying picture shows the bath ward of the South African Military Hospital at Richmond, England, where wounded American soldiers are being cared for. Here the treatment for septic wounds consists in keeping the patient day and night in a bath at a temperature of 98 degrees Fahrenheit.

Copyright by Western Newspaper Union Photo Service.

THE PRESENT-DAY PROBLEM OF THE HOSPITAL INTERN*

Shortage Caused by War Necessitates Complete Change in Character and Length of Service—Ideal Internship for Accomplishment of Intensive Training Outlined —Clerical and Laboratory Help of Great Assistance to Intern

By HAROLD W. HERSEY, M. D., Assistant Resident Physician, Massachusetts General Hospital, Boston

Among many other problems made more difficult for the hospital administrator by the war is the problem of securing a sufficient number of competent interns, providing them with a satisfactory service and graduating from the institution efficient, trained men. The war has multiplied the difficulties of this problem as it has every other phase of hospital administration.

The year of hospital internship allowed by the government is in many cases a shorter period than was normally outlined for the completion of the service. Consequently, at some of the hospitals it has been necessary to shorten the service considerably and to advance the men through the various grades of service much more rapidly. In other hospitals, it has been thought wise entirely to readjust the schedule, changing from a combined medical, surgical, and obstetrical service to a definite medical or a definite surgical service.

In our own case, at the Massachusetts General Hospital, our surgical service, previous to the entry into the war by the United States, was of twenty-one months' duration and divided into three-month periods, while the medical service consisted of eighteen months, also divided into three-month periods. Both services are now reduced to one year and are divided into two-month periods.

In spite of the best efforts, the various positions have been kept filled only by constant adjustment. Men on service have been called into government service. Men who were to have filled the later appointments have been called before commencing their hospital service.

This shortening of service, the changes in the curriculum of many of the medical schools, the diminishing number of applicants and the increasing need for medical men in the army and navy have necessitated changes in the duties of the interns and have not only made necessary increased application on the part of the intern, but also called for and received the best efforts on the part of the hospital to equip these young men properly.

The question naturally arises: Are you making every effort to make the term of service for your intern one of profit and to turn out well-trained, alert, capable men? Will these men be enthusiastic rooters for your hospital or will they feel, as they look back on their service, that it could have been more profitably spent? Will they be a credit to your training and a benefit to the community? What may be done to systematize their work, and what may be done to allow them to employ their time to the best advantage?

These are but a few of the questions which are being met daily, and, with the diminishing number of interns, every effort should be made to standardize their work and offer an internship which will make your hospital sought by the medical students, not only now but in the less belligerent times which will soon follow.

Just what should constitute a definite, well-balanced internship? It is obvious that it will be impossible for all hospitals to offer the same type of service. It is just as obvious that it will be impossible for all hospitals to devote the same amount of time to the instruction of their interns and equally impossible for all to offer the same advantages in equipment; but it is perfectly feasible for all hospitals to formulate an ideal internship and to approach just as near to ideal internship as it is practically and financially able.

With this definite schedule, it should be the effort of every administrator to check up the work of his interns at frequent intervals and to see that they are profiting by their opportunities to the fullest extent.

AN OUTLINE FOR AN IDEAL INTERNSHIP

As an example of an ideal service for the intern the following are essential:

1. A definite, well-planned series of duties should be so arranged that the intern begins with the more simple duties and passes, at stated intervals, to more complicated and more important ones.

2. A well-equipped laboratory should be provided, and the intern should become familiar with the routine laboratory tests, the examinations of the excreta, the sputum, blood, etc. He should have the opportunity, upon the ward visits, to see the patients from whom these specimens are obtained and to associate the physical findings with those of the laboratory. Far too many laboratory examinations are purely mechanical, and insufficient opportunity is provided for cor-

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

relation between the developments of the ward and the laboratory.

3. Upon assuming his duties the intern should be called before the administrator and carefully instructed in those duties, and should be told what will be expected of him and what will be the opportunities of return to him.

4. Following this lecture by the administrator the intern should be given a carefully prepared book of instructions and rules with which he should become thoroughly familiar.

5. Definite instruction should be provided by a competent anesthetist in the administration of anesthetics, and the intern should be supervised in this work until no risk to the patients is involved.

6. An out-patient department or dispensary should be provided for the treatment of ambulatory cases. In this department the intern should receive an invaluable training in diagnosis, a gradual approach to the more complicated treatment, an insight into the type of case more commonly met in private practice, and, what is fully as important, should become familiar with sickness from the patient's point of view.

7. A definite period of service should be provided in the emergency ward, if possible, under the supervision of a senior officer.

8. Careful instruction by a surgeon specially skilled in the treatment of fractures should be provided, with demonstration by the intern of his having grasped this treatment, including careful explanation of the importance of the early recognition of fractures, the importance of x-ray examination on borderline cases, especially on cases of head injury, and an explanation of the legal aspects of fractures.

9. Definite instruction should be given in the use of the roentgen rays and in the interpretation of the findings.

10. Training should be given in the recording of patients' histories and in the keeping of concise records, with a full understanding of their importance. The legal aspects of records should be explained and the importance of keeping from the records suppositions and trivial remarks tending to injure the hospital.

11. The staff should consist of broad-minded men, capable of and interested in the instruction of interns, and the findings of each case should be discussed and demonstrated.

12. A well-equipped pathological laboratory should be provided, an energetic effort should be made to secure post-mortem examinations, and a demonstration should be made of the pathological findings.

13. The work of an intern in any one department should be carefully checked and come up to a definite standard before he assumes the duties of the following grade.

14. Upon assuming new duties of any grade or department, there should be a careful transfer of service and a careful explanation, both of the duties to be assumed and of the condition of the patients on the service. This is especially necessary in the transfer between the junior and the senior, particularly on the surgical service. It is at such times that the seriousness of a patient's condition may not be fully grasped, that medication may be continued unnecessarily, and that stitches and packings are forgotten.

15. Opportunities should be provided the intern to do research, and he should be encouraged to avail himself of these opportunities.

16. The interns should be encouraged to hold conferences, at which papers should be presented by the different services upon unusual cases, or subjects of unusual interest.

17. A definite review of the intern's work should be made at stated intervals by the heads of the service, an explanation should be given to him of the points in which it is below standard or could be improved, and an attempt should be made to turn to him work in which he is not receiving sufficient experience.

18. The surgical intern should be required to assist at a prescribed number of typical operations and actually to perform a prescribed number of similar operations under supervision. Too frequently the intern is dependent upon the generosity of the visiting surgeon, and the actual skill and technic acquired by the interns of different services varies out of all proportion to the types of cases admitted to the services.

19. The intern is benefitted by close cooperation between the hospital and the medical school, and an attempt should be made on the part of the medical school to explain to the students the opportunities for summer work in the out-patient departments and dispensaries, as well as the possibilities of working on relief work and as assistants during school terms. A further explanation should be made of what the hospital will do for the student and what the student should do for the hospital. A series of lectures at the medical school during the school period by leading hospital administrators on hospital routine would tend toward greater efficiency, while a short elective course on hospital administration should interest students and show them the possibilities in that line of work.

20. In order to maintain the health of the interns at its best, they should have comfortable and cheerful living quarters with adequate baths

and lavatories. A rest room and a room with a piano or a billiard table furnish effective means of relaxation, while a tennis court or means of sleeping on the roof give the men the benefit of fresh air. Adequate time off duty should be provided. Two weeks' vacation during a year's period of service is not too much and gives a reward of service to which to look forward.

21. The intern should be encouraged, during his term of service, to check up the end results of his cases with a view of shortening the days of hospital treatment and putting the patient into condition to return to work as a permanent wage earner at as early a period as possible.

22. Finally, for the good of the hospitals and in justice to the intern, an attempt should be made to standardize the hospital, in order that men graduating from different hospitals may more nearly approach an equal footing and be of equal benefit to the community.

Of course, the foregoing outline is more or less an ideal or a suggestion, along which lines we are all attempting to follow, more or less closely. It is impossible at present for all hospitals to adhere to such a routine, but much may be gained by a similar schedule.

METHODS OF MEETING PRESENT DIFFICULTIES

Now, a word as to what may be done to relieve some of the present difficulties. It is obvious, as stated above, that, by changing the term of service or altering its type, it will be possible to give the men a year of intensive service. The men will, in many cases, move forward much more rapidly and will have less time to apply to their duties. To offset this, every effort should be made to make this term of service one of intense application and absorption, to see that each step counts and that less important duties are delegated to clerks or trained assistants.

Admittedly concise systematic records must be compiled by the intern, but the drudgery of this work and the time consumed may be lessened by dictating one's findings to a paid stenographer, who will type the record at a later period. Not only is time saved to the intern, but a uniform typewritten record results, in strong contrast to the illegible, hastily constructed, hand-written sheets which are frequently impossible to decipher. If funds are not available for employing such a stenographer, it is often possible to secure the services of highly educated, conscientious, volunteer workers who are eager to aid the hospital and who perform these duties in a creditable, efficient manner. Many hospitals have found the dictaphone of value, the intern dictating his observations at his leisure and the clerk subsequently transcribing the record.

In the laboratories, paid technicians may be employed to advantage. It is asserted that a certain amount of this work is absolutely essential to a man about to practice medicine. Certainly it is. But the up-to-date medical school has usually given its men a solid foundation in this work, many of the men have frequently served as substitutes or relief men during the medical training, and it is quite feasible to shorten this period of service to a considerable extent and leave more time for actual care of patients.

Furthermore, much time may be saved to the intern by having these data added to the charts and records by trained clerks rather than by having the laboratory intern pass from ward to ward consuming an hour or more daily.

It is absolutely essential that an intern should receive careful, systematic instruction in the administration of anesthetics and its subsequent application under watchful supervision. But it is equally non-essential that, having demonstrated his ability to the satisfaction of the hospital anesthetist on a stipulated number of cases, he should sit morning after morning anesthetizing patients, when there is a crying need for men capable of active, concise and rapid treatment. It is perfectly possible to secure nurses for this work, who, by thorough training, become competent anesthetists. Incidentally, by cooperation with the schools, it is frequently possible to secure medical students for a period of a month or so, who may be trained for the same work.

Some hospitals which have not previously been able to avail themselves of the services of women interns are filling some of their vacancies from these graduates. The difficulty, of course, is that few hospitals have adequate living and dining quarters for this purpose.

The question whether or not the intern should receive a salary must, of course, be decided by circumstances. Other things being equal, it is usually considered that the intern receives sufficient in the way of training and experience to more than repay for his services. In the smaller hospitals, however, where fewer cases are available, it is sometimes necessary to allow a definite salary, which, of course, appeals to the men who have reached the end of their resources, or who hope to lay aside a small amount with which to enter practice. Many good men are secured by the small hospitals through this method, who would not otherwise be obtainable.

Is the year of internship allowed by the government or the hospital year advocated by the medical schools and the state boards of medicine sufficient? From my observations, I should say that it is not. The apparent skill acquired by the

interns who train over a longer period seems sufficient to warrant a return to an eighteen or twenty-one months' appointment at the end of the war.

Many of the medical schools are conducting practically a continuous session, so that classes are graduated at different periods of the year than formerly. The hospital administrator would do well to acquaint himself with the month of these graduations and take steps to let these graduates know that his hospital is on the map and eager to use them.

SUMMARY

To summarize: During the war it has become more and more difficult to secure interns for hospital service.

In many instances it has been necessary to shorten the services or change its character entirely.

Because of the changes in services the intern should be instructed much more carefully than formerly and given a concise, intensive training.

As an aid to the accomplishment of this intensive training an ideal internship should be outlined and adhered to as strictly as possible.

By utilizing the services of clerks, stenographers, laboratory assistants and volunteer workers, by the use of the dictaphone, by the aid of nurse anesthetists and women interns, much time can be saved to the intern, and his year of hospital training can be made one of profit.

Abstract of Discussion

DR. H. M. HURD, Baltimore: I have been of the opinion for some time that the third-year medical student ought to have some opportunity of serving as a substitute, in order that he may prepare himself for the final year and that it may be possible for him to get more out of the final year than he would otherwise.

I think the suggestion that less time be spent on writing history is a useful one. I know several institutions where the dictaphone is in use and where, after an operation or after the ward rounds, it is possible for the medical officer to dictate what he has seen about the different cases or the steps of the operation. Then all the routine and drudgery of transcribing it and typewriting it is taken up by a worker, and I think volunteer workers might be secured for that. In many hospitals lately it has been customary for this service to be in a special division of the hospital during the entire twelve months; for example, twelve months in medicine, twelve months in surgery, twelve months in gynecology, etc. It seems to me desirable that we should give at this time of the year, under the circumstances, a divided service for the large hospitals, so that the interns may see different branches of service and be prepared to do two things—first, to be of more service to the community immediately after they leave the hospital, and to be able to do the things for which they are not especially prepared otherwise; and, second, to fit themselves for army life, where this all-around service is most essential. More attention should be given to the instruction of the intern. The intern usually comes in in a rather dilapidated condition, after his three or four years of hard service, and is sometimes inclined to feel as though he has come into an easy place, but I think he should understand that the hospital year is the hardest year of the whole four.

DR. W. G. NEALEY, Brooklyn, N. Y.: We have the one-year internship, in which a man gets surgery, medicine, and obstetrics. We have no trouble getting interns. We have nine at present. I think this is partly due to the well-rounded service which is given. Perhaps it is not so efficiently conducted as it was when we had a two-service; now, we have crowded a two-year internship into one year. Some time ago we called the interns together and asked them if they would like us to cut out the gynecology and obstetrics. They said, "No, we don't get that in the army, and we are all going into the army. That is why we come here—to get the well-rounded service."

DR. WALKER: I think that the Harlem Hospital, New York City, has the best service for a young man getting out of school that I know of. I was fortunate enough to get into Fordham Hospital. There we had a two-year service. We went in three months on the medical service, we switched over three months to the surgical, then back to the medical, back to the surgical, until our last six months. Then we elected by examination whether we would have a surgical or medical hospitalship. I think the combined service is much the best for a young graduate. If you go in and get a service that is straight medicine, you miss a lot that you would get from a surgical service, and vice versa.

MR. JOHN N. NORRIS, New York: Colonel Smith told me the intern would be allowed to secure his hospital service, and he said he must secure it practically immediately. That would mean we will have to abolish the graded service. We hadn't anticipated that, and we are planning at the Presbyterian Hospital to take our entire staff of sixteen interns on at once. Of course, that will require considerable modifications of our schedule.

DR. JOSEPH B. HOWLAND, Boston, Chairman: The ruling that we have gone on at the Massachusetts General Hospital has been that any man has sixteen months after graduation to get in his year's internship; that is, if he gets in immediately after graduation, he is taken into the army at the end of that year, of course, but a little allowance, four months, is given in which to secure an internship. What Mr. Norris says about it is quite disturbing. If we have to get it in all at once some of us will be left high and dry between the graduation. I have found, though, that many of the men in the War Department are right out of civil life; they know all of our troubles, and they are very helpful.

Provision for Additional Piping and Wiring

In these days of largely expanding ideas, there are few hospitals which will not at some time in the future require additional piping or wiring. Experience has shown that it is difficult to install such piping and wiring without seriously disfiguring and also making the cleaning of the hospital difficult. One method of looking toward the future is to drop the ceiling of the corridor about 12 inches, using suspended metal lath. A narrow and long trap door should be placed at intervals of 15 or 20 feet and always at the turns. The space above this suspended ceiling makes an ideal raceway for future piping, involving a minimum of disfigurement. It is also possible to use this space for ventilation if connected with some vertical duct. The trap doors should then be made of open grillwork.

HOSPITAL ACCOUNTING

The Journal Used for Debits and Credits Which Do Not Involve Cash—Treasurer's Journal Entries

By CHARLES A. PORTER and HERBERT K. CARTER of the Staff of The Modern Hospital

[Continued from January issue, p. 38]

THE JOURNAL

Owing to debits and credits to the General Ledger and Income Ledger which do not involve cash, and consequently cannot be posted from the Treasurer's Cash Book, it is necessary that a Journal be used to handle these transactions for future reference, including any necessary information pertaining to them. An ordinary Journal may be used that has the date, item, folio, and amount columns. Reference should be made in the Journal to the page in the General Ledger to which each item is posted.

TREASURER'S JOURNAL ENTRIES

1

Mortgages receivable	Dr.	$.....	
Bonds	Dr.	$.....	
Stocks	Dr.	$.....	
Other investment accounts (list)		$.....	
Donations unrestricted	Cr.		$..... ....
Legacies	Cr.		$..... ....

For value of same, not including accrued interest, given to the hospital; record of details, including name of donor, etc., name of stock or bond or property on which mortgage was issued.

2

Mortgages receivable	Dr.	$.....	
Investment account	Cr.		$..... ....

For value of same received in full or part payment of property sold.

3

Mortgages receivable	Dr.	$.....	
Bonds	Dr.	$.....	
Stocks	Dr.	$.....	
Other investment accounts		$.....	
General Endowment Fund	Cr.		$..... ....
Endowed Bed Fund	Cr.		$..... ....
Partly Endowed Bed Fund	Cr.		$..... ....
Other funds accounts	Cr.		$..... ....

For value of above given to these Reserve Fund accounts during month (describe in detail).

4

General Endowment Fund	Dr.	$	
Endowed Bed Fund	Dr.	$.....	
Partly Endowed Bed Fund	Dr.	$.....	
Other Reserve Fund accounts	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

Amount charged off above account, liability of the hospital having ceased.

It is to be understood here, as in all journalizing, that the debits are given first and the credits last, and the latter indicated by the amount being set to the right.

5

Partly Endowed Bed Fund	Dr.	$.....	
Endowed Bed Fund	Cr.		$..... ....

Accounts transferred from Partly to Endowed Bed Funds owing to completion of endowments during month.

6

Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Apparatus and instruments	Dr.	$.....	
Equipment, etc	Dr.	$.....	
Capital account	Cr.		$..... ....

For expenditures as shown by voucher register and reported by the Superintendent for the month.

7

Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Equipment, etc	Dr.	$.....	
Capital account	Cr.		$..... ....

Value of above received during the month if capitalized.

8

Investments	Dr.	$.....	
Buildings and real estate	Dr.	$.....	
Furniture and fixtures	Dr.	$.....	
Equipment, etc	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

For profit on sale of such property above its book value.

9

Surplus and deficit	Dr.	$.....	
Capital account	Dr.	$.....	
Building and real estate	Cr.		$..... ....
Furniture and fixtures	Cr.		$..... ....
Equipment, etc	Cr.		$..... ....

Loss due to fire or sale on above during the month.

10

Depreciation reserve	Dr.	$.....	
Buildings	Cr.		$..... ....
Equipment	Cr.		$..... ....
Etc	Cr.		$..... ....

For reserve for depreciation and repairs on capital property.

11

Surplus and deficit account	Dr.	$.....	
Mortgages receivable	Cr.		$..... ....
Bonds	Cr.		$..... ....
Stocks	Cr.		$..... ....
Other investments	Cr.		$..... ....
Loans or notes receivable	Cr.		$..... ....

Loss or depreciation charged off during the month on account of sales or a basic change in values.

12

Surplus and deficit account	Dr.	$.....	
Treasurer's accounts receivable	Cr.		$..... ....

For such accounts charged off as uncollectible during the month. List each account separately.

13

Loans and notes payable	Dr.	$.....	
Loans and notes payable	Cr.		$..... ....

For renewals of above during the month. List each on one side only—usually the debit side is used.

14

Treasurer's account with Superintendent	Dr.	$.....	
Hospital earnings	Cr.		$..... ....

Amount of Superintendent's bills receivable and other hospital earnings as shown by his report for the month.

15

Treasurer's account with Superintendent	Dr.	$.....	
Surplus and deficit account	Cr.		$..... ....

Surplus amount of general material on hand as shown by Superintendent's report.

16

Surplus and deficit account	Dr.	$.....	
Treasurer's account with Superintendent	Cr.		$..... ....

Grand total current and capital expenditures as shown by the Voucher Register—list later. Superintendent's accounts receivable charged off during the month as reported by the Superintendent. Loss and depreciation of general materials as reported by Superintendent. (See Schedule 1.)

17

Grand total current revenue for month:

Hospital earnings	Dr.	$.....	
Donations	Dr.	$.....	
Donations unrestricted	Dr.	$.....	
Legacies	Dr.	$.....	
Legacies unrestricted	Dr.	$.....	
Income investments in General Endowment Fund	Dr.	$.....	
Endowed Bed Fund	Dr.	$.....	
Partly Endowed Bed Fund	Dr.	$.....	
Special funds (list)	Dr.	$.....	
Appropriations from special funds for current expenses	Dr.	$.....	
Miscellaneous	Dr.	$.....	
Surplus and deficit	Cr.		$..... ....

Amounts transferred from above to surplus and deficit account during the month.

18

Treasurer's accounts receivable	Dr.	$.....	
Income	Cr.		$..... ....
Reserve funds	Cr.		$..... ....
Other revenue or income accounts	Cr.		$..... ....

For amounts accrued during the month and remaining unpaid.

19

Capital account	Dr.	$.....	
Hospital land and buildings	Cr.		$..... ....
Equipment	Cr.		$..... ....
Machinery and tools	Cr.		$..... ....
Apparatus and instruments, etc	Cr.		$..... ....

For book value of sales as per Individual Ledger accounts.

20

Mortgages receivable	Dr.	$.....	
Mortgages receivable	Cr.		$..... ....

For renewals of mortgages (give details).

In case the Treasurer of a hospital has to open a set of books for the reason that a new institution is being started, he will have to make the following Journal entries:

1

Subscriptions	Dr.	$.....	
Capital	Cr.		$..... ....

For amount of subscriptions guaranteed by individuals (the names and amounts appearing on the subscriptions list).

2

Stocks	Dr.	$.....	
Bonds	Dr.	$.....	
Subscriptions	Cr.		....

For the amounts paid in by the subscribers.

[To be continued.]

Planning for the Hospital Laundry

In planning for the hospital laundry, in fact for any laundry, it is desirable to test the water for lime and magnesia. If these are present in considerable quantities it will be apparent from the hardness of the water and it will be worth while to look into one of the systems of "water-softeners" which are in vogue for the treatment of alkaline waters.

The saving in soap and washing compounds will amount to quite a tidy sum in the course of a year, if the water is treated to remove the lime and magnesia, and in addition the linens, woolens, and other laundry will have their lives of usefulness extended quite materially. Woolens will come from the laundry soft and with a minimum of shrinkage if washed in water from which the alkali has been eliminated.

Packing the Wringer

In the packing of a centrifugal wringer or extractor, the mere fact that its mechanism is balanced from the center indicates that the placing of the clothes must be done evenly so that the weight is maintained equally throughout. The best way is to lay the articles easily around the bottom and side. When the wringer is started, it will then adjust itself unless the weight is much overbalanced in some place, in which event, of course, you run the risk of an accident. The principle of extracting the water is that of throwing the articles against the sides, which are full of perforations, so that the centrifugal force of the motion drives the water through.

He who can take advice is sometimes superior to him who gives it.—Von Knebel.

LITTLE JOURNEYS TO PLACES AND PEOPLE WORTH KNOWING

The Eighth Little Journey—To the Hospital for Ruptured and Crippled, New York—Crippled Children and Uncle Sam's Wounded Soldiers and Sailors Share Its Advantages Today

By MARGARET J. ROBINSON, R.N., Field Editor, The Modern Hospital, Chicago

THE Hospital of the New York Society for the Relief of the Ruptured and Crippled must have been built by an architect who loved children. Such, at least, is the testimony of its wonderful roof gardens and school rooms where these small, twisted pieces of humanity grow stronger in the light and air, high above the dirt and crowd of New York's East Side.

The history of the origin and progress of the hospital tells that as far back as 1842 the distinguished surgeons and philanthropists of New York realized the necessity of hospital facilities for ruptured and crippled children, and an organization known as "The Society for the Relief of the Ruptured and Crippled" was finally started in 1863.

Some of the best people in the city of New York became interested in the work, and year by year, stone on stone, the hospital has grown apace with the need for the work to be done. Dr. James Knight was the founder of the institution. After his death in 1887, Dr. Virgil P. Gibney, who has been for thirteen years the resident assistant, was made the surgeon-in-chief and still heads the staff. Dr. William T. Bull and other surgeons of national reputation have been chiefs of departments of the hospital.

At present writing the hospital has departed from its usual policy of treating only crippled children. Several of its great sunlit, airy wards and a part of the roof garden are filled with soldiers and sailors, and will be until the government has completed its military hospitals.

In the basement of the Hospital for Ruptured and Crippled is perhaps the most complete hospital workshop in this country for the making of orthopedic apparatus. Ten skilled workmen and five skilled workwomen are forging and welding.

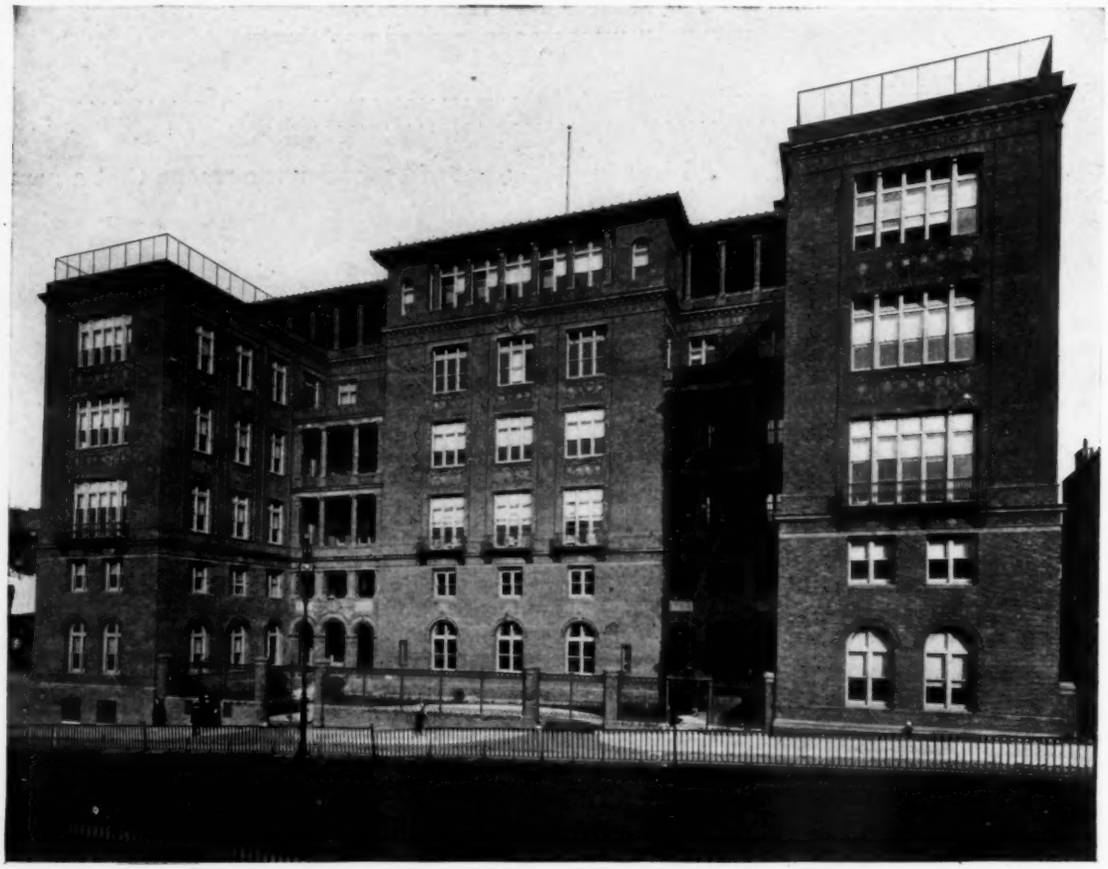


Fig. 1. Present building of the Hospital for Ruptured and Crippled, 302-325 East Forty-second Street, running through to Forty-third Street, New York. It is designed in the Renaissance style of northern Italy.

and working on the leather and canvas to make the braces, splints, hammocks, supports, bandages and other orthopedic appliances used to make crooked backs and limbs straight again.

ical and passive manipulation of anesthetized muscles and stiff joints.

The plaster room is one of the interesting features of the work with the crippled patients.

Fig. 2. Waiting room of the out-patient department. It is designed with a cross-vaulted ceiling and has a quarry tile floor with a marble border and base. The painted decoration of the room is such as to interest children as well as those of more developed taste. High windows on the north and south give an abundance of light and natural cross ventilation. At the back of this room is a space enclosed with a counter where the registrar, admitting clerk, and cashier have their desks during clinic hours. Either side of this counter are wide doors, the one on the right leading to the hernia department and the one on the left to the orthopedic department. The registrar on duty at the desk thus has control of the dispensary patients.

In another part of the basement is an exceptionally well-equipped laundry. The work turned out is spotless. Here and there among the laundry workers were a half-dozen convalescent sailors washing and ironing their own clothes. I believe that Uncle Sam's jackies are the cleanest men afloat or ashore. They wash even their dark blue flannel blouses and trousers and hats at stated intervals, and the white clothes are scrubbed with a brush and rubbed daily. If no irons are available, Jack rolls his clothes tightly while they are damp in just a certain way to bring them out smooth and dry again.

The radiographic department of the hospital is unusual in its equipment and accessories, as it must be, of course, to make plates of the fine detail necessary to the orthopedic surgeons in this work. There is a hydrotherapeutic department with a graduate nurse of specialized training in charge of the work done. A Zander room contains all the necessary apparatus for mechan-

Fallen arches and clubbed feet, crooked spines and congenital hip dislocations were being cast into normal shape by the skilled hands of surgeons and nurses. Even the woman attendant who was mixing the plaster paste worked quickly and accurately. The paste she made was as smooth as butter.

There is a floor for girls and a floor for boys—crippled girls on one floor and crippled boys on the other. Not many of them were in the beds, however, as orthopedic cases are usually ambulatory or use wheeled chairs. Some of the poor little mites were reclining or strapped to tray-like contrivances on wheels to keep their sick spines stationary and to give them their chance to heal.

Each floor has its dining room with long, low, narrow tables easily reached from small wheeled chairs.

The school room is a great room with windows all around and frescoes of children dancing through fields. In the evening, when school for

the small folks is not in session, this room is used as a concert hall. The Woman's Committee of the Council of Defense and other organizations provide entertainment here for the convalescent soldiers and sailors.

The children's school is in session each morning of the school year. It is in reality one of the grade schools of the city of New York, half of its expense being paid by the city and half by the hospital organization. There are six teachers. The children spend the mornings in the schoolroom and the afternoons out of doors on the roof. Twice each week those who can go are taken about the city and parks in large motor buses.

In several of the large wards on the upper floors and on a greater part of the roof were soldiers and sailors. Most of them were up and about. Some were in for corrective surgery or treatment; only a few seemed very sick, and everyone else was having a good time. The nurse in charge of the roof wards was one of the Home Defense graduates. She was married, her husband was in service, and she was doing her share to help us win by taking the place of a nurse who had gone overseas. These nurses retired from active service who have enlisted for home defense are giving splendid help in this way.

Volunteer aids, women who have taken courses in nursing to help with the present needs, are giving several hours a day to help in various ways in the hospital.

In one of the ward beds was a poor lad with a tubercular bone condition, who suffered horribly at times from cramps in his feet and legs. As we came into the ward I saw a group leaning over his bed. There were two jackies, a marine, and two nurses. The bed was spotless and on the white pillows were little red crosses. Each one of the group was endeavoring in some way, by moving a pillow or a hot-water bag, or by rubbing the tortured limbs, to help the boy to bear the acute attack of pain.

We came down in the elevator just as it was time to bring the children from the roof to their wards again for the supper hour. When we got off at the third floor, we saw small girls hobbling out on tiny crutches, one braced on both sides up to the shoulders, and some just limping a little. Then came three big jackies tenderly carrying three white-looking kiddies that couldn't walk.

Fig. 3. The roof garden, overlooking the river, high above the dirt and crowds of New York's East Side. It is divided by a solarium into two sections, one for the boys and the other for the girls. A large part of each section is roofed so that patients may be out even in the most stormy weather. The masonry parapet is kept low for the children to see over, and a wire mesh screen is built above it for protection. Meals may be served on the roof from the pantries on this floor.

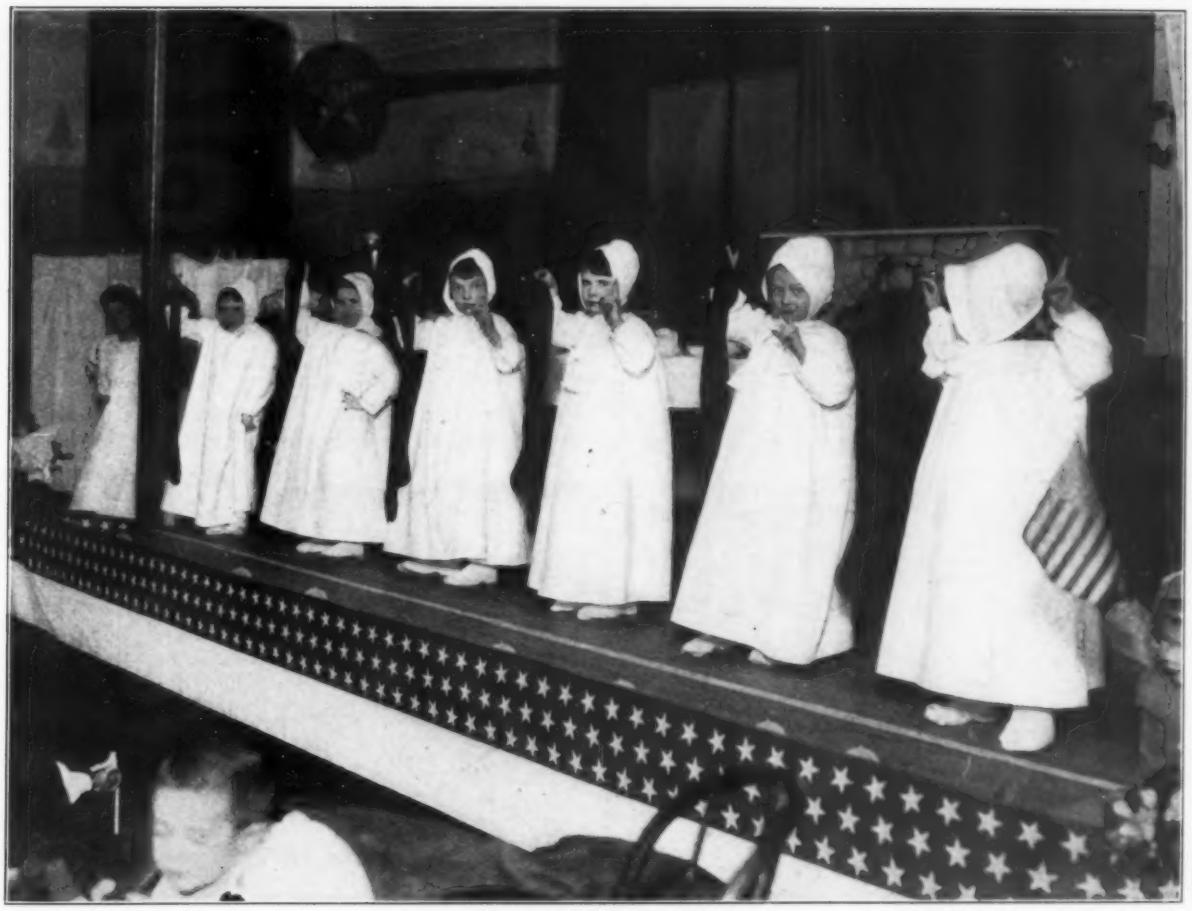


Fig. 4. Christmas is truly Christmas to these tiny inmates of the hospital who were snapped at an interesting moment in their Christmas entertainment.

Crippled boys and girls, soldiers and sailors, army officers and navy officers, civilian physicians and superintendents, nurses and employees, all are living and working together with the spirit of unselfishness which these times are bringing to the surface in all of us.

The Neurological Services of the Territorial Zone

All soldiers of the Italian army who are found suffering from injuries of the nervous system are sent from the battle front directly to two large neurological centers, one at Bologna, the other at Milan. From these collecting centers each patient is sent to the neurological center of his home province for treatment and reeducation. But frequently many "nervous patients" are overlooked in the front, as well as in the territorial hospitals, the general physicians failing to make the proper diagnosis. For these cases G. C. Riguier, writing in the *Policlinico* of Rome, proposes that the directors of the collecting centers should appoint specialists who pay regular visits to all the front and territorial hospitals and examine all patients with nerve lesions.

Experience during this war has shown that prosthesis is of prime importance for the treatment of peripheral nerve lesions, as well as for professional reeducation. The French neurologists early recognized the importance of this feature, and have obtained remarkable results by early rational treatment of such cases. Many deformities resulting from peripheral nerve lesions are due to the want of prosthetic appliances. The prosthetic appliances should not only correct an improper position, but should gradually enable the patient as much as possible to make use of the paralyzed member.

The French Surgical Hospital at Kiev

This hospital was organized in France and sent in May, 1917, by way of England, Archangel, and Petrograd to Kiev. The Russian revolution was then in full swing, and, instead of being assisted in their undertaking by the people of Kiev, the Frenchmen were treated with suspicion and even hostility. But the intrepid French surgeons did not permit themselves to be discouraged. With the aid of the Russian Red Cross, they obtained the necessary buildings in which they established their hospital. During all the changes of the revolution, and while the city was bombarded by the Bolsheviki and fighting was going on in the streets of Kiev, the hospital has diligently carried on its work of humanity, tending to friend and foe alike. The surgical service was crowded. It had two separate divisions, an aseptic and a septic division in separate buildings. Carrel's famous method of wound treatment was applied in all cases. The personnel of the hospital has lately returned to France. It is fully described by L. Saue, writing in the *Presse médicale* of Paris.

A homelike atmosphere can be brought about by making the bedside stand attractive. This table is near the patient and makes up a part of her world for the time being. Place her flowers, books, and gifts where she can see them. —Marie Robertson, R. N., in The Nurse.

FROM OUR FIELD EDITORS' NOTEBOOKS

Light and Air Characterize the Rhode Island Hospital—Wesson Memorial Hospital Well Equipped for Its Active Surgical Service—Successful Cooperative Health Department of the Tri-Cities of Illinois, LaSalle, Peru and Oglesby—Beautiful Location of Ottawa Tuberculosis Colony and Illinois Valley Hospital—LaSalle County Opens First New County Sanatorium Under New Law

Rhode Island Hospital, Providence, R. I.

I had only a brief two hours to spend at this well-known hospital, but I saw enough to make me want to come back for a visit of several days, in which to gather information to pass on to the readers of THE MODERN HOSPITAL.

Dr. John M. Peters, the genial and experienced superintendent, has been with the institution for twenty-five years and is thoroughly grounded in hospital administration.

In spite of the fact that the Rhode Island Hospital is located in the midst of a thickly settled part of Providence, the buildings have an abundance of light and air, for the hospital site comprises about twenty-seven acres of ground. As Dr. Peters took me about the building, I received the impression of spaciousness and solidity of construction. The halls are wide, the wards are large, and the operating rooms, of which there are five, are all spacious. Dr. Peters called my attention to the hardwood maple floors in some of the wards, and to the fact that they had stood the ceaseless wear and tear of fifty years remarkably well. One who did not know might have thought that they had been laid but five years ago.

It was interesting to note how square corners were eliminated in the wards which were constructed as early as fifty years ago, both in the intersections of the walls and the intersection of the walls and ceiling.

The hospital has a large surgical service; 4,781 operations were performed last year.

Dr. Peters expressed especial satisfaction in the way they had been able to transform into a children's pavilion what had been the contagious pavilion, before the Providence City Hospital was constructed. The room where the babies are bathed is especially well arranged and equipped to expedite the work done there.

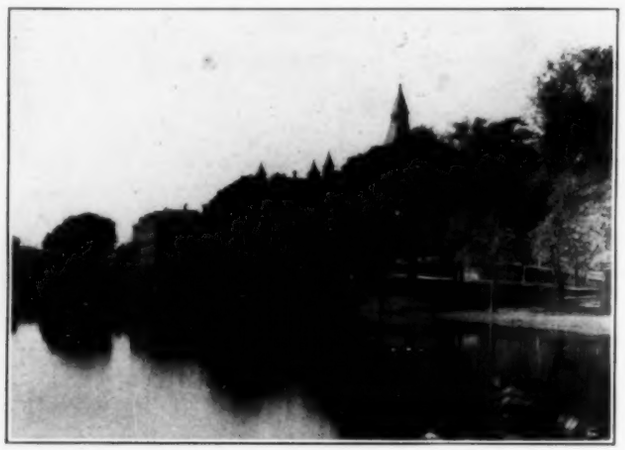


Fig. 1. Beautifully situated by the water's edge among the trees of Providence is the Rhode Island Hospital. Another view is shown on the cover page of this issue.

In order to keep track of patients needing social service, the admitting office and social service workers together decide, at the time a patient is admitted to the hospital, whether or not he is or is likely to become a social service case, and the decision is recorded on the medical record. The social service department also keeps a card file of its patients. This enables social service workers to keep in touch with the patients while at the hospital and often obviates the embarrassment of having a patient thrust upon the social service department for care, without previous notice, on the day of his discharge.

Wesson Memorial Hospital, Springfield, Mass.

What is now the Wesson Memorial Hospital of Springfield, Mass., was originally incorporated in 1900 as the Hampden Homeopathic Hospital. In 1906 its name was changed to Wesson Memorial Hospital, in honor of Mr. D. B. Wesson, who donated the funds with which the present building was constructed. The hospital is housed in a single four-story building of attractive design and very substantial, not to say costly, construction. The window sills are all made of Tennessee marble, and all woodwork is quartered oak. Curved lines prevail throughout.

The hospital has a maximum bed capacity of one hundred and three beds, only seventy-seven of which are now in active service. The service is largely a private-room service. There are, however, a few small six-bed wards. Dr. J. H. Carmichael, the surgeon-in-chief, told me that, could the hospital be rebuilt, he would urge the allotment of more space to wards.

Fig. 2. In the "sun bath pavilion" these tiny inmates of the Rhode Island Hospital receive the best of treatment, for the hospital is especially equipped to care for them.

The hospital has a very large and active surgical service. For this work it is well equipped. In fact, few hospitals of the size of the Wesson Memorial Hospital can boast of so complete, substantial, and up-to-date appointments in their operating suite.

Although the staff members belong to the homeopathic school of medicine, any physician of good regular standing, licensed to practice his profession, is allowed the privileges of the hospital and may treat any private patient therein.

A nurses' training school is connected with the hospital. It now has a student body of forty, housed in what was formerly the hospital and part of the upper floor of the present hospital. The nurses receive their obstetrical training through affiliation with the Wesson Maternity Hospital near by.

The Hygienic Institute of LaSalle, Peru, and Oglesby, Ill.

The three small manufacturing cities of LaSalle, Peru, and Oglesby, in the north central part of Illinois, are situated in one township and form practically one community. Their population is largely foreign, and their health problems are much the same. They have jointly about twenty-six thousand inhabitants (LaSalle, over twelve thousand; Peru, nearly nine thousand; Oglesby, about five thousand). In the ordinary course of events, each would probably have a so-called part-time health officer, paid about twenty-five dollars a month, and worth something between twenty-five dollars and twenty-five

Fig. 3. The Hygienic Institute which serves three cities in Illinois. Here the inspection of milk and water, of sputums for tubercle bacillus, and of cultures for diphtheria take place, and infant welfare conferences are held.

cents. By extraordinary good fortune, however, the La-Salle-Peru-Oglesby community is the proud possessor of a really functioning health department which it believes to be unique, not only in the United States but in the world. The following is the story told me by Dr. Edmund Weis, the health commissioner and director of the Hygienic Institute of LaSalle, Peru, and Oglesby:

Something over five years ago, a citizen of the community, the late F. W. Matthiessen, was guided to make public benefactions in a rather original way. As a part of a comprehensive scheme of community welfare work, he endowed a health center or Hygienic Institute, whose director, by agreement with three cities, serves them all as health commissioner. The trustees of the Hygienic Institute, which is legally organized as a private corporation, appoint the director, thus affording the singular phenomenon of a public official supported by private funds and appointed by private philanthropy. In order to give the arrangement legal standing, the mayor and city council in each city appoint a resident of that city to serve as assistant health officer; but, to keep these appointments out of politics, the right of nomination is con-

Fig. 4. The Isolation Hospital of La Salle, Peru, and Oglesby is a fireproof, two-storied brick structure, built to accommodate twenty-eight persons. Special trained nurses are in charge of the patients.

ferred by ordinance on the director of the institute. Besides the director-commissioner and his three assistants, the staff includes three school nurses, one for each city, an infant welfare nurse, a full-time bacteriologist, a part-time dentist, an operator for removal of tonsils and adenoids, and a stenographer.

The institute is housed in a former residence, selected because of its central location with reference to the three municipalities. It provides room for the director's office, the institute's library, a bacteriological laboratory, a dental clinic, an infant consultation room, with the office of the infant welfare nurse adjoining, and two emergency operating rooms. The "plant" of the tri-city health department also includes a twenty-eight bed isolation hospital in Peru.

The activities of the Hygienic Institute Laboratory include inspection of water and milk, of sputums for tubercle bacillus, and of cultures for diphtheria. The infant welfare department (known as the Emma Matthiessen-Chancellor Memorial) holds infant welfare conferences twice a week, at which babies are weighed and measured. Follow-up-work is done and individual instruction given at the homes. Modified milk is given to all needy cases. A prenatal clinic is planned. School medical inspection is made of children in the second, fourth, sixth, and eighth grades, and records are kept at the director's office at the institute. All of the services of the institute are free to anyone with an income of less than eight hundred dollars a year.

The officers of the Institute have raised the standard of enforcement of local and state health laws. As only one example of the work they are doing, a pamphlet published by the La Salle-Peru Township High School says:

"A year ago about two-thirds of the milk delivered in La Salle, and at least three-fourths of that delivered in Peru, was dipped from cans on open wagons, in the street. No attention had been paid to dairy inspection, and no bacteriological or chemical analyses of milk were made. At present all milk delivered in La Salle is bottled in

Fig. 5. Partial view of the building and grounds of the Ottawa Tuberculosis Colony. From a modest beginning as a "tent colony" it has become a fully equipped institution affording every facility for the treatment of tuberculosis.

sterilized bottles and pasteurized, and approximately one-third of the supply in Peru is bottled. In Oglesby practically the entire supply is delivered in bottles. All dairies are systematically inspected and scored and the product from each dairy is subjected to a bacteriological and chemical analysis at least twice every month."

The first question which naturally arises is: How does the arrangement work? The people of LaSalle-Peru-Oglesby are like the lilies of the field so far as their health department is concerned. Do they respond to its benefits, and do not complications arise from the administration of a public office by a private philanthropic corporation? Dr. Weis tells me that it works well—that the people respond appreciatively and that the private practitioners of the community welcome the cooperation of the institute.

The Ottawa Tuberculosis Colony and the Illinois Valley Hospital

These two institutions are under one management. The Ottawa tuberculosis colony is about fifteen years old and was the first tuberculosis institution, Mr. H. V. Pettit, the superintendent, tells me, absolutely to disregard climatic considerations in the selection of a location. If climatic considerations have been disregarded, scenic considerations have not, for the situation, nearly across the road from the new LaSalle County Tuberculosis Sanatorium and directly overlooking the Illinois River Valley, is superb. Moreover, it is near enough to and far enough from the city of Ottawa to combine the convenience of the city with the hygienic advantages of the country. The institution comprises sixty-five beds, and the buildings include a club house, medical building, bath house, and tent cottages. Especial attention is paid to the amusement and entertainment of the patients, and the colony is very well equipped to provide moving pictures, concerts, holiday celebrations, amateur theatricals, indoor games, and the lighter outdoor sports, such as croquet, amateur photography, modified golf, boating and walking parties.

The Illinois Valley Hospital, of fifteen beds, is intended as the nucleus of a modern community diagnostic center, to which the practitioners of the surrounding region may bring their different cases for examination by specialists with all the advantages of up-to-date diagnostic equipment. Like a good many other plans, this has been partially halted by the war. On the physical side, the ruling idea in this hospital and the tuberculosis colony has been to get as far away as possible from formal institutionalism, and the result has been some very interesting and attractive features in furnishings and equipment. These include a moving picture machine on the balcony of the dining room, the indirect lighting fixture more fully described on another page; tinted walls and

Fig. 6. The club house is the social center of the Ottawa Tuberculosis Colony. In it are located the dining room, lounging room and library, business offices, sanitary kitchen, store room, and cold storage plant.

cheerful colored hangings in the patients' rooms, rubber-tired wheels on all beds so that they can be readily moved out on the sun porches, and little conveniences like an electric attachment permitting a patient to make her own toast for breakfast in her room if she desires.

Ryburn Memorial Hospital, Ottawa, Ill.

The present twenty-five bed edifice of Ryburn Memorial, the municipal hospital of Ottawa, has long been quite inadequate to the demands made on it, and a bright, attractive sixty-bed hospital building is now nearing completion. This new building is being erected by the city of Ottawa and a bequest of Mr. Solomon E. King, and is therefore to be called the King Annex.

One of the pleasant features of the plan is an arrangement to make use of the roof for the benefit of patients. This is especially desirable, as the building is in the heart of the town. The elevator runs to the roof. The present hospital building will be used as a nurses' home when the new building is ready for occupancy. Ryburn

Hospital has fifteen pupil nurses in training; it affiliates with the Chicago Lying-in and Annie Durand Hospitals. Miss Elizabeth Asseltine, the superintendent, showed me eleven stars on its service flag for nurses now under the colors—an exceedingly good showing for this small institution. The hospital has recently received from Dr. Edmund Weis of Ottawa, now director of the La Salle-Peru-Oglesby Hygienic Institute, the gift of his entire medical library.

The LaSalle County Tuberculosis Sanatorium

LaSalle County is to have the honor of opening this month the first of the new county tuberculosis sanatoriums authorized under the new law described on page 128 by Dr. George T. Palmer. The buildings include an administration building, a fourteen-bed pavilion for ambulatory patients, with provision at present for twenty beds, but capable of enlargement to a capacity of thirty beds. The dining room, which is in the administration building, has a little stage at the rear, so that on occasion it can be used as an auditorium or amusement theater. In order that the patients may feel that no fear is felt of them, it is planned that the nurses and officers will eat in the same room with the patients, but at different tables. Separate china and other table ware is to be used by patients, and it is to be washed separately from that of the nurses. Each bed-fast patient is provided with a room

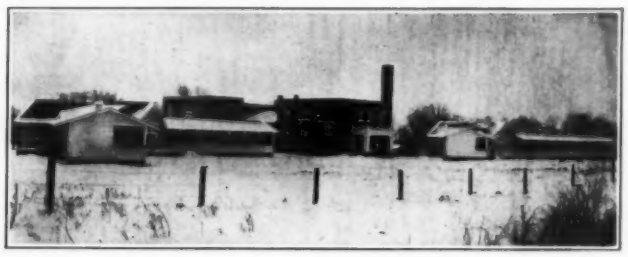


Fig. 7. The La Salle County Tuberculosis Sanatorium, the first Illinois county sanatorium to be opened under the new law.

of his or her own, and the entire aim of the architect, Mr. Jason Richardson, has been to make the surroundings home-like and cheery to patients, with nothing suggestive of cold institutionalism, still less of the "charity" taint. The location on the wooded heights just outside the city of Ottawa and above the Illinois River is beautiful. I was out here on one of those days when the mercury seems to have run out of the bottom of the thermometer. The heating plant was only beginning to get to work, but the infectious enthusiasm of Miss E. D. Miller, the superintendent, was almost enough to warm the place by itself. LaSalle County apparently is to have a sanatorium in which it can take pride.

Rhode Island Organizes to Control Venereal Disease

The campaign for the control of venereal disease in Rhode Island is being prosecuted vigorously. Present plans call for the establishment of seven clinics throughout the state: Three in Providence—at the Rhode Island Hospital, Providence City Hospital, and St. Joseph's Hospital—and one each at the Newport, Woonsocket, and the Pawtucket Memorial Hospitals. A clinic is also to be established at Westerly but not at a hospital. Five of these have already been opened and the other two will probably be opened by the time this item is published, the staffs having already been picked. A syphilis clinic has been running several years, at the Providence City Hospital, but the work is being enlarged.

Dr. Harry Kimball, acting assistant surgeon, and chief of the venereal disease division of the state of Rhode Island, is developing the state's program as rapidly as possible. As in other states, arsphenamine is furnished free by the United States Public Health Service. Every effort will be made to make these clinics self-supporting.

The New Great Hospital of Rome

The Board of Hospitals of Rome has approved the plans for the construction of a new large hospital. The new institution will be erected in the western suburbs, on the heights of the Trastevere, a most favorable situation connected by street-car lines with all parts of the city. This hospital will have a capacity of 1,200 beds and will greatly relieve the crowded conditions of the Italian capital.

These plans are described in a recent number of the *Policlinico* of Rome.

The Scholastic Instruction of the Wounded in the Biffi Pavilion

The Biffi pavilion was set apart for wounded and crippled soldiers. As many of these lacked an elementary education, a school with six classes was established, in which, besides the common branches, French was taught. The teachers were all women. The soldiers showed a remarkable diligence and interest and acquired an elementary education in a few months. At the close of the course an examination was held, and diplomas were given to the attending soldiers. This work is described by E. Medea in a recent number of *Ospedale Maggiore* of Milan.

This picture shows the Broken Hill and District Hospital, Broken Hill, Australia. According to the thirty-first annual report there are 154 beds in this hospital, an accommodation no more than sufficient to cope with the demand. The out-patient department cared for 8,254 patients in one year. The surgeon superintendent is Dr. Melville Birks.

The MODERN HOSPITAL

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Aims and Ideals in Hospital Administration

It is part of the American character to look ahead and to strive to advance. In these characteristics our hospitals share. Many American hospitals are well administered; all have their eyes turned toward the future and are seeking to improve, but in their search for improvement are guided by diverse principles. The perfect hospital does not exist—indeed, it is scarcely within the range of hope, for American idealism is tempered with common sense. But in one respect or more, nearly every hospital does strive for perfection. There are hospitals that seek to be perfect hygienically; there are others which aim to be the last word in scientific progress; still others seek perfection in economy of administration, in clinical service, in orderliness, in progressiveness, or in functioning, with the aid of their social service departments, as social institutions.

It was Florence Nightingale who led the van in the fight for hospital hygiene. She did not, at first, ask much—only that hospitals should not so far neglect the elements of decency and cleanliness that patients who entered the wards for treatment were likely to be injured instead of benefited. "It may seem a strange principle to enumerate as the very first requirement in a hospital that it should do the sick no harm," she wrote; and then went on to explain that "it is necessary to lay down such a principle, because the actual mortality in hospitals is very much larger than the mortality of the same class of disease among patients treated out of hospitals." Today such a statement is an anachronism. Hospitals may not confer on every patient every conceivable hospital benefit, but they are no longer evil instrumentalities—they do help most of their patients, and they may fairly claim that the sick in their wards are better cared for than the sick of the same social class or classes who are treated, or neglected, as the case may be, at home. High hospital mortality in the old days—not the "good" old days, by any means—was largely due to lack of hygiene, a fault for which hospital administrators and hospital clinicians were both responsible. But while modern hospitals are clean and modern surgery is aseptic, the hospital which takes especial pride in its cleanliness, and the surgeon who is doubly strict in the maintenance of aseptic technic in operating rooms and wards, approach a bit nearer to the ideal of hygiene than the average. Of them Florence Nightingale would heartily approve.

The ideal of scientific progress is commonly thrust aside by the small and impecunious hospital, as a thing which cannot be realized except through the establishment of huge laboratories, costly to build, costlier to maintain, and hence beyond ordinary reach. Yet some of the greatest discoveries recorded in the history of medicine are credited to observers who worked without lavish endowment or elaborate equipment. The scientific spirit, composite of modesty, curiosity, industry, originality, keenness in observation, and thoughtfulness, is thoroughly at home in the modern world and will reveal itself equally whether housed in the simplest hospital surroundings—in the private sick room, in a ward supplied with a few instruments of precision, or in the giant research institute, nine parts laboratory and one part hospital. It is a spirit which every hospital should stand ready to applaud and to support, for it is the greatest of humanity's servants.

Orderly all hospitals should be, but the hospital in which the ideal of order is permitted to crush all individuality and to place form and record above timely deed and sympathetic service, ceases to be a healthy hospital. In the realm of order, the civil hospital may, perchance, learn from the military—learn the value of moderation as well as of order, for it has been said that the major fault of some of our military hospitals is that they stress too heavily both discipline and order, and glorify paper work even to the point of sometimes forgetting the obvious needs of the sick. Of order hospitals need enough; of regulations, some; of

the will to serve in kindness and generosity, a constant and inexhaustible supply.

Economy is an excellent guiding principle in hospital administration, and a necessary element in all good management. Economy, however, is a negative, not a positive principle—it tells us what to avoid but not what to do. The enthusiastic economist who builds a wooden barrack and calls it a hospital will not be praised by the community when the building burns down and the inmates lose their lives. The alleged economist who hates to buy microscopes, who knows the cost but not the value of access to the open by means of balconies, who thinks one nurse equal to two, or who endeavors to save by compressing the period of surgical convalescence into the cruel compass of a single day, is guilty of reckless and inhumane extravagance. The proper field of a hospital economist lies entirely above the bed-rock of necessary and useful expenditure. Every hospital needs an administrator who is eager to spend as well as a committee on expenditures who want to know his reasons. Economy is but one of the ideals of hospital administration; its proper place is a subordinate one.

What, then, is to be the uppermost aim in hospital administration? Simple efficiency—the product of many factors, among which are buildings properly planned; an organization fittingly conceived; a medical staff wisely selected; a nursing staff generously composed, decently housed, and constantly instructed; an adequate household service; a board of managers and a superintendent fired with the spirit of service; a community cognizant of its needs and imbued with its responsibilities. With these essentials as a beginnng, a hospital can be made which will select its patients wisely and will deal with them justly.

S. S. GOLDWATER.

The Scientific Rigors of the Law

A certain alienist on the staff of a large psychopathic hospital is quoted by the newspapers of his city as declaring that a most effective way of lessening crime would be to hang vicious criminals. "I'm not advocating this, and am stating it merely as a suggestion of what was accomplished in the old English days to do away with crime. . . . Under the old English law there were one hundred and sixty-five crimes punishable by death. It seemed to keep down crime."

Perhaps if we could hang every alleged scientific man who talks nonsense we might in time achieve a race of super-scientific men who would always talk sense; but this means of progress has not yet been suggested so far as we know. We fear that, to the inhabitants of Great Britain in the happy days of one hundred and sixty-five capital crimes, this admirable system did not "seem to keep down crime." The blessings of freedom from crime seem at least to have been imperfectly apprehended by contemporaries.

"Coaches were plundered in broad daylight every day for weeks together," says Hall[1] of this period. "The mail from Bristol to London was robbed five times in as many weeks. . . . Thefts, foot-padding, and street assaults were everyday affairs. . . . People believed that highway robbery was a special evil of their own times, and Luttrell's *Diary* and other writings of the latter seventeenth and early eighteenth centuries show its alarming prevalence. Luttrell's six volumes are simply filled with accounts of highwaymen, executions, etc. Thus an entry for December 22 and 23, 1690, reads: 'The 22d, thirteen persons were executed at Tyburn for several crimes; as also a woman at Newgate and a notorious highwayman in Fleetstreet.' 'The 23d, Sir John Jonston, condemned for stealing Mrs. Wharton, went up in a mourning coach to Tyburn, and was executed for the same.'" In short, the good old bloody days were days also of rank and rampant criminality.

The foregoing, of course, is not an argument on the subject of capital punishment; that subject is too broad to be taken up here. Indeed, this protest is directed not so much at the doubtless hasty utterance of the alienist quoted, as at its solemn endorsement by a metropolitan newspaper as the "severe" but timely judgment of a rigorously trained scientific mind. Really, we feel that a scientific man who talks nonsense should neither be hanged nor taken seriously. There ought to be an open season for these things.

Routine Is Not Training

So remarks our good friend *The Hospital*, of London—rather too sweepingly for literal accuracy, in our view. A certain part of training consists in the formation and fixation of habits by routine. Some parts of a nurse's duties are too important to be exposed to the hazards of the wayward processes of thought. The more nearly automatic they become, the safer they are. When, for instance, a nurse is taught, as a part of an absolutely unvarying routine, requiring no effort of the brain or will, to read the label on the bottle twice, once before and once after administering the dose, she receives an invaluable piece of training, for which no exercise of mental development is an adequate substitute.

[1] Hall, Arthur Cleveland: Crime in Its Relation to Social Progress, Columbia University Studies in History, Economics, and Public Law, 1902, xv, 251.

But if you mean, Sir Henry—and we fancy you do—that routine is not education, we must agree with you. There are hospitals where routine is looked upon apparently, not as a means to an end but as an end in itself—a sacred ritual to be performed with reverence but without thought, lest change in some minute detail profane and invalidate the whole. Here the whole effort seems to be to guard against the nurse's ever thinking for herself—an arrangement which might work well enough were it possible to insure that she would never encounter an emergency or lack some one at hand to do her thinking for her. We have all heard of the nurse who, having been trained to mix a certain medicament with a certain kind of spatula on a certain kind of slab, when on her first private case telephoned in great agitation to her instructor to know where she could purchase the spatula and the slab. What would such "training" do for a woman compelled to care for patients thirty miles in the country?

Yes, we are glad to endorse Sir Henry's sentiments, particularly when he says:

"There is, back of all, a very real and adequate reason for all this sweeping and dusting and washing and polishing which many seem to find so irksome. For one of the main requisites as regards the patient's surroundings is cleanliness, and although perhaps 30 or 40 percent of the probationers to be trained may fully understand the importance of such cleanliness, and require no training to fit them to see it carried out, the other 60 or 70 percent will not understand it, and would be incapable of enforcing it unless they had been through every step themselves and had been compelled to realize its importance by being made to do it thoroughly and regularly. But if the nurse is given no reason for it all, then she does become simply a machine, accomplishing so many revolutions per diem. On the other hand, make your probationer realize at the outset that she is working directly for the patient by keeping his surroundings fresh and wholesome . . . then you will have gone far towards changing her whole attitude to her work."

Hospital Posts for Men From the Service

One piece of conservation which should not be neglected in our reconstruction work is the application to practical purposes of the valuable experience gained during the war in the hospital and sanitary services of the United States. Hospitals and welfare departments of industrial concerns, especially mines and shops employing men only, should be able to make good use of such material. These young men in many cases chose the hospital or sanitary corps because this work was in the line of their ambitions; they used with earnestness and enthusiasm the opportunities afforded them; and these opportunities were such as to put them on their mettle and develop the best in them. Some of the non-medical and non-commissioned officers are no doubt better qualified by nature and training for some administrative posts in hospitals than are most of the candidates usually available.

It is scarcely necessary to emphasize the desirability for hospital work of those members of the medical corps where experience in the national service has been along hospital lines. THE MODERN HOSPITAL will feel it a privilege to serve as intermediary in placing in touch with each other men from these services and institutions which may desire to employ them.

Hospital Reports as Factors in Hospital Success

We wish to commend to our readers, as one of the most valuable and important papers that we have recently had the privilege of publishing, the article on "The Educational Value of Hospital Reports," by Dr. Carl E. McCombs, chief of the division of health in the New York City Bureau of Municipal Research.

Why do hospitals issue reports? To judge by the reports themselves, in most cases, because it is the thing to do. Why does the report in one case take one form, in another, another? Apparently because, in either case, it never occurred to the compiler of the report to do anything than what he did. Certainly in very few cases has the important function of the report received careful study; in fact, one might imagine that in very few cases had the report been thought of as having an important function to fulfill.

What is that function? Dr. McCombs makes that very clear: in the first place, to interest the community in the hospital and its work; in the second place, to show, clearly, exactly, and concisely, just what the hospital is doing, is prepared to do, and needs in order to do what it should.

The annual report is not or should not be a hospital's sole avenue of publicity, but it is too important an avenue to be neglected. In fact, it is so important that one of the most valuable pieces of constructive work that occurs to us at the moment would be the preparation, for presentation and discussion at the next meeting of the American Hospital Association, of an ideal, or at least a carefully planned and well executed, hospital report which might serve as a model.

Dr. McCombs' paper gives an excellent, concise summary of the essentials of a really good annual report. We hope that it will be widely and thoughtfully read, and we should be especially

pleased to hear from anyone who may have further ideas on the subject to express.

An Unusually Well-Planned Service Building

The service building of the Rhode Island Hospital, illustrated and described on page 85 of this issue is, from the point of view of the professional fault-finder of the editorial page, very discouraging; it offers so little opening for criticism. The location of certain rooms might be questioned; yet the arrangement of the class room and diet kitchen is so good, the provision for the bakery and the kitchen so complete, and the whole plan so well worked out that very little can be said on the subject except that it is unusually good and well worth study.

Names of Industrial Physicians Desired

Dr. Francis D. Patterson, chief of the division of industrial hygiene and engineering, Department of Labor and Industry, Harrisburg, Pa., would like to obtain a complete list of all physicians engaged in the practice of industrial medicine. For several years it has been the practice of the Department of Labor and Industry, to hold semi-annual conferences of industrial physicians and surgeons. These conferences are well attended, and a great deal of valuable matter is presented in the discussions. In order to reach all physicians interested, Dr. Patterson desires to have their names upon the mailing list. The next conference will be held early in 1919, and it is essential, therefore, that the names and addresses of all industrial physicians and surgeons be in his hands as soon as possible. The courtesy of physicians and surgeons submitting their names will be greatly appreciated.

Sanitation of North Carolina Jails

Out of a possible 100 points only two jails scored above 90 in a recent inspection of the county jails of North Carolina by the State Board of Health. Nine are scored between 80 and 90, and eleven between 70 and 80. The other twenty-six of the forty-eight which were inspected range down to a score of 47.

The sanitary rules and regulations upon which the scoring is based provide merely for the essentials in health protection of those persons who may be confined in the jails of the state. It is required that a physical record of the prisoner be made upon admission and that the races and sexes be separated, together with the separation of infectious diseases, especially tuberculosis and venereal diseases. Other regulations provide for precautions against vermin, for ample air and floor space, for pure water and bathing facilities, for proper clothing and bedding, for the sanitary disposal of sewage, for measures against flies and mosquitoes, and for general cleanliness.

A Survey of Vital Statistics Before Building

As a preliminary step in the establishment of a new hospital and the planning and construction of its buildings, there should be prepared a most careful study and survey of the physicians' records and vital statistics of the community which it is proposed to serve. Such a survey covering the community experience for a period of years would be of the greatest possible value in deciding upon the size and character of building necessary, and in adjusting the relative size and importance of the different departments in the proposed institution. Before taking any definite steps as to the size and character of the proposed building it would well pay a community to employ a statistical or other expert to make such a study, because of the elimination of improperly balanced planning and the resulting waste in administration and overhead costs.

It would also afford a fair basis upon which to estimate the future expansion of the hospital in general, and of its various departments. The most vital factor in the determination of a hospital plan should not be the money available, or the whims of the committee in charge, but should be the present and probable future needs of the community as deduced from the information made available by the study of such data.

Orientation

In planning a hospital, ideal orientation should not be attained at the cost of undue sacrifices in order and practical advantages in the plan. Those familiar with hospitals will recall many buildings in which "sun worship" has brought about planning which can be most charitably described as "peculiar." It seems to be the fault of tyros to attach too much importance to the placing of the axes of hospital buildings exactly on the meridian, regardless of other considerations. While the advantages of sunlight in all parts of a hospital are undeniable, a little less than the maximum may be accepted if the compromise results in locating the building in an orderly position on its site and the avoidance of eccentricities in the plan.

In the southern states it is often much more important to dispose the hospital so as to get the advantage of a prevailing wind than to give prime importance to the matter of sunlight. In cities, where the limitations as to site are governing factors, many entirely satisfactory hospitals exist where patients' rooms receive no other than north light.

By Your Telephone Operators and Your Doormen Are You Known

Telephone operators, information clerks, and doormen should be taught that the reputation of the hospital rests to a large extent with them. They are in constant contact with the public. The vast majority of persons who have dealings with hospitals know nothing about their officers, but they do know what kind of telephone operators, information clerks, and doormen they have, and they form their opinions of the institution from their experiences with them. These employees should never miss an opportunity to increase their knowledge concerning the various activities of the hospital. The more they know about the institution and its personnel, the more valuable they become. The superintendent who exercises care in the selection of these employees and sees that they are properly trained is rendering his institution a real service. In this connection, Mr. Pliny O. Clark's little article on page 94 of this issue will be found of unusual interest.

A Lubricant Which Will Not Injure Rubber Gloves

At this time of great need for conservation of materials of all kinds, the potential conservation of rubber gloves may well be considered. The life of the rubber glove, when used for gynecological examinations is of very short duration, as the use of vaseline or other greasy substances as lubricants deteriorates the rubber by softening and thinning it. There are several products on the market which are free from grease but their cost places

them beyond the reach of many hospitals. However, a very satisfactory preparation can be made at a small cost by using as a base the mucilage obtained from Irish moss, which is inexpensive, comparatively free from undesirable ingredients, and possesses very good lubricant properties, at the same time being harmless to the rubber, tending to preserve it and keep it soft and pliable.

The Treatment of Colored Walls

The day of glaring white walls in the hospital, let us hope, is over, and the colored wall has come to stay; but what color and how disposed? The answer to this is quite important for the comfort and pleasure of the patient.

In order that there may be sufficient light for the proper examination of the patient, the ceiling and upper part of the ward or private room should be light in color. There is no reason, however, why the lower six or seven feet cannot be kept reasonably dark, giving a more restful surface near the eyes of the patient. A division line between the two colors may be made in a simple stencil, in harmonizing colors.

Simple pictures of wood scenes, pastoral effects, or, in the case of children's wards, Mother Goose pictures, may be fastened to the walls with glue, and the surface varnished. Any artistic home colors applied in the flat with a little taste may have a real therapeutic effect on the patient.

Monthly Ration Plan Promotes Economy

One very useful plan for economizing in the use of food supplies is to adopt a monthly ration plan. Under this plan maximum limits of the various food supplies are decided upon and at the end of the month, if a maximum has been exceeded, an investigation is started to disclose where the trouble lies. One hospital allows 3⅓ pounds of butter, 11⅓ pounds of meat, 34 eggs and 20½ quarts of milk a person a month. Experience has proved that these are liberal allowances.

"It's Dogged As Does It"

If you in your little corner, Mr. or Miss Superintendent, are discouraged because you have so much hard work, and you see your neighbor flourishing and seemingly having no work to do, just remember that the hard-headed business man, in making out his will, is going to be attracted to that place where the work is consistently and thoroughly done from day to day, and not by the spectacular work which may last but a year or two. Cheer up and do your best.

THE LATCHSTRING OUT

We are pleased to have friends of THE MODERN HOSPITAL who happen to be passing through Chicago come and visit us at our offices, whether they are seeking information or availing themselves of the opportunity for a pleasant chat. To be of service is a privilege which we welcome. The files of our publication department, containing considerable data and statistics, may prove both interesting and helpful to those seeking information, while those who wish to be informed on specific topics already published in THE MODERN HOSPITAL may have full access to our complete set of back files.

MISS BLANCHE M. JOSEPH, field dietitian of the Emanuel Mandel Dispensary, Michael Reese Hospital, Chicago, during a few hours spent in our office recently, told us of an idea which had long been a dream of hers and which she hoped some day to see realized. Miss Joseph believes that every large city should have a lunch room—an "inn," she prefers to call it—where the business man or woman who is suffering from nephritis, diabetes, or even gastric ulcers might take the noon-day meal and have prepared those foods which meet the requirements for his or her particular disease. The "inn" should be under the proprietorship of an experienced dietitian, who, in turn, might interest various physicians in her project and have them refer to her those of their patients who need special attention in the matter of food. It should be located in some central part of the city, where it would be convenient not only for the business man and woman but also for physicians, who would be invited to visit it and offer criticisms and suggestions for obtaining greater efficiency. A large office building, Miss Joseph believes, would be an ideal location—one in which a hundred or more doctors had their offices. These doctors could then suggest the proper foods for the ills of their various patients and refer them to the dietitian, who would carry out directions and help them, through a correctly balanced diet, back on the road to health.

MR. J. E. BROYLES, superintendent of Fairmont Hospital, Kalamazoo, Mich., says that his hospital comprises three units: tuberculosis, contagious, and venereal diseases. The last unit includes cases sent from the various war camps, and for this purpose one building, formerly a nurses' home, has been patriotically put aside. In the tuberculosis building proper, there are 50 beds, in the contagious ward, 26, and in the venereal disease ward, 26. At present, five tuberculous soldiers are being cared for and are segregated from the others. In addition to serving Kalamazoo, Fairmont Hospital is doing some work for Van Buren County. According to Michigan law, two or more counties may combine to direct a contagious hospital, and it is thought that, with three other counties now interested, it may soon be possible to establish a four-county contagious institution.

All contagious patients are from Kalamazoo, and the cases include any and every contagious disease. The system is that of open wards rather than cubicles, four or five patients being put in one ward. An attempt was made to start a training school, but the course offered did not secure the approval of the state. With the present scarcity of nurses, both graduates and undergraduates are being used in the hospital. In the tuberculosis building, with a total of 40 beds, there are seven nurses, in the contagious building, three nurses, and in the venereal disease unit, two nurses (one day nurse and one night nurse). Each division has a head nurse, and one superintendent takes charge of the entire three units. The problem of domestic help has been solved by paying sufficiently high salaries to attract and keep efficient and worth-while employees.

MISS LYDIA H. KELLER, inspector of training schools of Minnesota and secretary of the Minnesota State Board of Examiners, spent a few hours in the office of THE MODERN HOSPITAL recently. Miss Keller believes that the day of definite nursing standardization is not far off, and she feels that the present is a most opportune time for a step forward in this direction. The women of the country are now greatly interested in the Student Reserve, and their interest, if used immediately, may be most helpful in securing needed improvements. If allowed to lag, however, it will be a most difficult matter to regain the necessary enthusiasm.

RED FOR SAFETY*

Highland Second Sight and the Red Cross at the Dardanelles—A Tale from Suvla Bay

By ANNA M. CAMERON

When it became known that I had orders to join a hospital ship, many were the gifts which reached me. I became stocked with necessities to meet every conceivable need, especially as it was being whispered abroad that events were about to become lively in the Dardanelles.

My old Highland nurse brought me her offering with an apologetic look on her dear old face.

"My dear, what will you be thinking when I tell you that your daft old Nannie has brought you red ribbon when she kens fine you canna abide the color?"

"It is lovely ribbon, Nannie; I like it very much."

The old woman smiled wistfully.

"My lassie, I went by the steamer to Oban to get you blue ribbon to tie your hair at nights, and when I got to the shop my gift of second sight began to trouble me sore."

"Oh, Nannie, I am sorry."

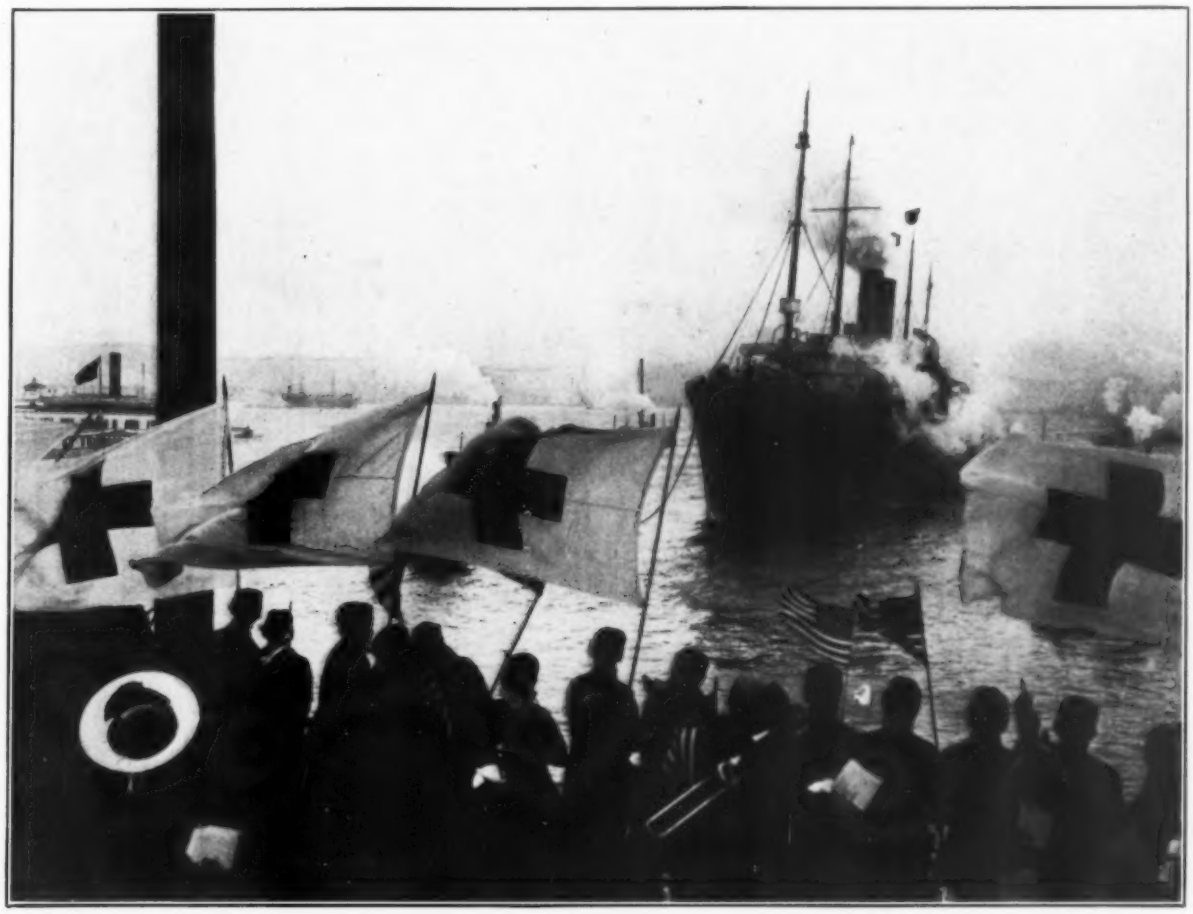
"It was like this. I got to the shop and just as I was going to ask for blue ribbon I found I couldna do it."

"How was that?" I queried.

"It sounds gey foolish, you'll be after thinking, but as sure as death something kept hammering in my brain driving me to ask for *red* ribbon. I tried hard to ask for blue ribbon, but my tongue went back on me, so after making queer-like faces, and kenning fine that the young woman was taking me for a gowk, I heard myself asking for twelve yards of good red ribbon one inch wide."

"That was very strange, Nannie."

"Aye, it was that. The second sight was on me right enough; for why, the dear knows. I thought at the latter end I'd no' give you the red ribbon, but something just drove me to it, and now"—with a sigh of relief—"you've got it."



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Hailed by the banners of the women of the Red Cross, the steamship Celtic arrived in port, returning from France with several officers and men. A Red Cross chapter welcomed her home, and this picture was snapped as she steamed up the river to her pier.

My protestations that I loved red ribbon did not deceive the old lady in the very least, and when we parted she whispered: "You'll forgive your old Nannie, my bairn; I had to go by the sign."

The army sister does not usually care for the color red. It borders her uniform cape, and she often gets as tired of it as of being hedged round and round by red tape.

The whispers concerning our destination were justified. We went straight to Gallipoli, of tragic fame, and did our part in the transport of sick and wounded to Egypt, Malta, and sometimes Blighty.

On one precious week of absence I saw my old nurse.

*From the British Journal of Nursing.

She was concerned over my bleached appearance and wept when I told her of the bravely borne sufferings of our men. At our farewell she whispered: "Do you wear the ribbon?"

I fear my reply was inaccurate. The roll of ribbon lay at the bottom of my cabin trunk. I disliked the color intensely. It reminded me too vividly of the blood which dripped and dripped when our brave men were shot in the boats, and thus wounded afresh on their way to the hospital ships—their sole sanctuary.

Our good old ship never returned empty on its eastern way. We usually carried the staff and equipment of a hospital to meet the ever-growing urgency in Alexandria. The medical officers were bidden to remain on the ship to receive their orders later. Conjectures were rife. Whispers of another attempted landing went round the ship.

We were bound for Mudros, to get fresh orders there. I was on night duty, as some orderlies had gone sick. On this particular ship sleep was for me an unknown quantity. The sisters appeared to be rummaging in their boxes in the neighboring cabins, and murmurs of "I was quite sure I had *some* red, but of course, I never wear any, so I only have a scrap."

"I haven't got any at all; looking is just a forlorn hope."

"They seem red mad for some curious reason," I murmured, trying desperately to sleep.

In the afternoon a white-capped head peeped through my porthole.

"Oh, good; you are awake. Have you any red ribbon or any red material?"

"Yes, I have some. What is all the fuss about?"

"You know the medical officers are bound for Mudros without definite orders, and that there are rumors of another landing?"

"Yes."

"Well, you know how stupid men can be. Out of two hundred doctors, less than fifty have the white armlet with the red cross, as they mostly imagined they were bound for Egypt. They may have to land on hostile ground, and they *must* have armlets. We sisters have stolen white linen from the stores and have been making them like mad, but the red stuff on the ship is practically nil, and we have over a hundred armlets short of the red cross."

I dressed quickly, and, fishing out the long-neglected red ribbon from my cabin trunk, unrolled it so that it might appear to the best advantage, and hurrying on deck I gladdened the eyes of over a hundred men by the delicious sight.

All the time Nannie's wistful face was before my eyes, and her words came back to me: "As sure as death something kept hammering in my brain driving me to ask for *red* ribbon."

"Someone queried: 'How ever did you come to have such lovely *red* ribbon by you?' and then I told old Nannie's tale."

"Scotland forever!" shouted an exuberant voice. "Let us all drink the health of your Highland nurse tonight."

The landing at Suvla Bay has passed into a memory, but a bitter one for those whose dearest paid the price.

On my next few days' leave I saw my old nurse again, and I left her one of the proudest dames in Scotland. The glad memory will always abide with her that *she* provided the red ribbon which marked over a hundred red cross armlets—the only means of safety carried by a devoted band of men who wrestled with the death by wounds which threatened such numbers of our volunteer men at Suvla Bay.

STATE TUBERCULOSIS SANATORIUMS IN ILLINOIS

County Tuberculosis Sanatorium Law, Passed in 1915, Is Upheld in General Elections of 1916 and 1918 When Many Counties Vote Funds—This Public Service Not Regarded as Charity

By GEORGE T. PALMER, M.D., Assistant Director, Department of Public Health, Springfield, Ill.

As a result of the autumn election, early in November, Illinois will be in a position to make more adequate provision for its tuberculous people and for the tuberculous soldiers who have already returned to the state to the number of fifteen hundred and whose numbers will doubtless be greatly increased by the return of the American military forces to this country.

Illinois has never had a state sanatorium, and prior to 1916 there were no public institutions except in Chicago and Cook County and a small municipal institution at Rockford. In the entire state, outside the Chicago district, in which it was estimated there were approximately fifty thousand persons suffering from more or less active tuberculosis, there were but two hundred and fifty sanatorium beds and most of these were in private institutions conducted at relatively high rates. The General Assembly of 1915 enacted the so-called "Glackin law," or the county tuberculosis sanatorium law, which provided that by referendum a special tax not to exceed three mills could be levied for the establishment of county tuberculosis sanatoriums, free tuberculosis dispensaries, and visiting nurse service.

At the autumn election of 1916, eight counties voted on the proposition. The measure carried in seven of these counties, but through a technical error in the ballot the election in Kane County was declared void.

In four of these counties, Adams, Morgan, LaSalle, and McLean, steps were immediately taken to erect sanatoriums. The LaSalle County sanatorium at Ottawa and the McLean County sanatorium at Bloomington will be ready to receive patients shortly after the first of January. In Adams County a site has been purchased and a contract for the building has been made, but construction was delayed on account of the rulings of the War Industries Board. In Morgan County a sanatorium building which had formerly been used for the care of the insane was purchased, but the satisfactory remodeling of this building has been interfered with by the shortage of funds. Incidental to litigation over the levying of a tax which was brought about by certain railway companies in Champaign County, the board of supervisors failed to levy the tax, and, after the institution of a suit for mandamus, appropriated a small amount of money; this has been expended in a tuberculosis survey and in the maintenance of dispensary and nursing service. At the annual meeting of the board last September, money was appropriated for the purchase of a site and for preliminary work, but no definite steps for the establishment of the Champaign County sanatorium can be expected before the September meeting of next year.

Ogle County, which is one of the smaller counties of the state, has levied a tax which is sufficient only to conduct dispensary and nursing service and to provide for its tuberculous persons in other sanatoriums in the state as authorized under the provisions of the law.

The results of the election of this year stand out as the most important accomplishment in the development of public sanatoriums ever attained in any state in the Union. Thirty-three counties voted on the proposition and the measure was carried by substantial majorities in all of these counties. The counties voting on the proposi-

tion are: Boone, Bureau, Christian, Clark, Clay, Coles, Crawford, DeWitt, DeKalb, Douglas, Fulton, Grundy, Henry, Jackson, Jefferson, Kane, Lee, Logan, McDonough, Macon, Madison, Marion, Piatt, Pike, Randolph, Scott, Stephenson, Tazewell, Vermilion, Whiteside, Will, Winnebago, and Woodford.

The campaigns in these counties were conducted by the Illinois Tuberculosis Association of which Dr. George Thomas Palmer of Springfield is president and Mr. Walter D. Thurber of Chicago is executive secretary. The measure received the unqualified support of Governor Frank O. Lowden, the State Department of Public Health, the American Red Cross, and the State Council of Defense.

The Illinois county tuberculosis sanatorium law is unique in state institutional legislation. The law provides that county sanatoriums are free to rich and poor alike, and it is the endeavor of Illinois officials that these institutions shall be regarded in the same light as public schools, or fire departments, and not in any sense as charitable institutions. The law also provides that county tuberculosis sanatoriums cannot be built on grounds set aside for almshouses, and no person having to do with almshouses shall be connected in any way with the tuberculosis institutions. The expenditure of funds raised by the special tax is entirely in the hands of the board of trustees who are supposed to be entirely independent of the influence of county boards; also the trustees are appointed by the chairman of the board of supervisors with the approval of the county board.

Whether the entire three mill tax or only a part of this amount will be levied in the several counties will not be determined until the autumn of 1919, but it is hoped that a large number of these county institutions created this fall will be ready for occupancy by January 1, 1920.

PUBLIC HEALTH AND VENEREAL DISEASE*

United States Public Health Service Carries Army Program Into Civil Life—Cooperation the Essential Thing—Hospitals Must Not Shirk Responsibility

By ALEC THOMPSON, Major United States Public Health Service, Washington, D. C.

I have been asked to explain the cooperation scheme which has been worked out between the Army and the Public Health Service. The civilian work heretofore done by the Army will now be taken over by the United States Public Health Service.

The Public Health Service program for combating venereal disease began last January when a telegram was sent out by Surgeon-General Blue asking the states to avail themselves of the Public Health Service offer to place a venereal disease officer in each state health department. Preliminary work was done under Assistant Surgeon-General Allen McLaughlin, who had been health commissioner of the state of Massachusetts. The Chamberlain-Kahn Bill, which is part of the military appropriation act, recently passed, carries with it a million dollars for state subsidy. During the present fiscal year, that million dollars will be distributed to the states upon a basis of population. Next year it will be based on the amount of money which the individual state is willing to put into the fight. Here is your chance to go home and do some work. This year your state will get some money; next year it can have the same amount of money, provided it puts up some money itself. It will get dollar for dollar, up to its population allowance.

*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

In Massachusetts they appropriated $30,000 last year. The Federal subsidy for the present year is $36,000. They propose to ask the legislature for $50,000 as the state's contribution, feeling that the state should appropriate at least half as much again as it will receive from the Federal fund, and preferably twice as much. They are screwing up their courage to the point of asking the legislature for $70,000.

Funds are provided by the Chamberlain-Kahn bill for the administrative work of the Public Health Service; money is also provided for the organization of the Interdepartmental Social Hygiene Board—perhaps an unfortunate term. This is not a sex educational campaign; it is a public health campaign, putting venereal disease, the whole venereal disease question, where it belongs—on a firm foundation of facts, not fads. It is attacking disease, not fancies. It is not a question of whether the home should teach sex hygiene; it is not a question of whether the churches should teach sex hygiene; it is a straight question of venereal disease. What is the amount? How is it spread? Who are the carriers? How can it be avoided? How can it be controlled and treated? The New England scheme is simply a method of correlating the work of the six New England states, and, because of the close interlocking between the army program and the Public Health Service program, one officer has been selected to represent both surgeons-general.

In the New England district this is my particular job, and I am detailed from the Surgeon-General of the Army to the Surgeon-General of the Public Health Service for approximately half of my time. In other sections of the country, the reverse may be the case, depending entirely on local conditions and the personnel that can be assembled.

The Public Health Service in the venereal disease division has a section which devoted itself to the question of clinics and developing standards both for the theoretical and the practical side of the work. This section is asking the active cooperation of the hospitals. If you are in charge of an institution, you probably have venereal disease in your wards, even though you may have a "Not Admitted" sign on the front door, as most hospitals have. There is no use sidestepping the question. From 10 percent to 30 percent of your patients have positive Wassermann tests. You have a lot of cases of gonorrhea, and you don't know it. The institutions that are frankly admitting cases of venereal disease have the advantage in that the cases are tagged and the necessary precautions can be taken. I recall one patient who wanted to get into a hospital some time ago. He was sent in as a case of hernia; there was no other way of getting him in, and there was no place to take care of him. That is the way many such cases are received. In the army we do things a little differently, and we are asking the civilians to do the same things in the same way.

Another section of the Public Health Service is carrying out general educational propaganda of the public health side of the work, and, beginning this month, it will issue a monthly bulletin to be printed and edited in New York. If you will write the editor of the *Public Health Service Monthly Bulletin*, 105 W. 40th Street, New York, you will be placed on the mailing lists.

The Public Health Service aims to control venereal disease in the United States by developing methods which are recognized public health measures. These comprise, first, reporting; second, the detection of carriers; third, the isolation of the incorrigible carriers; and fourth, treatment facilities in hospitals and dispensaries connected with hospitals. This program requires the education of

the public, and not only the passage of adequate laws, but also their proper enforcement. Prostitution must be repressed to the point of suppression if that can be attained. When we say "prostitution," we do not refer only to the case of the down-and-out female; we are talking about the male and female prostitute. The Surgeon-General of the army started this entire program a year ago last April on the premise that continence is compatible with health and is the best prevention of venereal disease. That is a simple, self-evident, straight statement.

The program is to be worked out and is being worked out, in so far as is possible, as a he-man and a she-woman program. No long-haired men and short-haired women fanatics are to be in this fight. It must be a hard-hitting, straight-from-the-shoulder campaign. Facts are facts. We must look at them and take them as we find them. The sum total of venereal disease will shock us but we must carry on.

The problem of venereal disease control in the army is practically the same as it is in civilian life. I put it in this way because a good many who were controlling, or thought they were controlling, civilian venereal disease, went into the army with the idea that the army was the spreader of venereal disease. In peace days it was generally assumed that the army was recruited from the street, that the riff-raff was there, and that, as venereal disease also was there, venereal disease existed only in the riff-raff and was spread by the army. Venereal disease is no respecter of persons. Not a class in the community is without it, and all classes have it more or less in the same percentages. We have had this fact strikingly demonstrated to us since we have been in uniform. We are finding in the army confirmation of all our previous experience in attempting the control of venereal disease. The army educates its men; the army has advice and diagnostic facilities; the army has treatment facilities; and last, but not least, the army follows up its cases, because all that the army doctor needs to do when Private Jones does not come around is to send a guard after him. Your social service and your follow-up by the printed letter or card must take the place of the one little thing that we have in the army—namely, discipline.

This organization is probably aware that there were certain—and very few, let me add—civilian clinics and health departments that developed during the last few years various methods for the reporting of venereal disease as well as for providing facilities for treatment and diagnosis. We have been endeavoring during the last year to stimulate and increase these activities, and we want you, as individuals and representatives of your institutions, to take the word "slacker" off the front of your building and put up "venereal disease admitted" instead. I mean that. I mean it very sincerely. Let me tell you why.

Since war was declared, there have been 158,000 men in the United States Army with venereal disease, which means the loss of 2,300,000 days; this is equivalent in time to 6,300 men for one year. Only one-sixth of these cases were contracted by men in olive drab; the rest came in on men in the draft who should have been cured in the civilian community before the army ever saw them. During a recent test of nine weeks, there were 39,425 cases of venereal disease reported in the army of the United States, of which only 4,106 were contracted after enlistment. Now these are figures worth pondering over. At the camp the average period of time from the day of infection to the day of induction into the army was six months, and man after man said, "I could not get treated. I could not go anywhere. The only place open to me was the quack or the corner drug store." We are asking you as institutions to give the facilities to which cases can be referred that are in such urgent need of treatment. I might have said "our cases." After a man has registered under the selected service law we figure that he becomes practically part and parcel of the army, and it does not make any difference whether he ever gets into uniform or not.

We are carrying this campaign into the factories; we are going into industrial plants and placarding the toilets and washrooms, both for men and for women, calling attention to venereal disease, explaining how serious it is, and emphasizing the only method of prevention, which is continence. We are asking the plant superintendent to become the confidential adviser, or else to make one of his physicians, his social worker, or his welfare worker the confidential adviser to the plant, and to tell these people where they can go to get treated. What are they going to be able to tell them in your town? That they cannot go to the hospital because the hospital says "No"? That is what we are up against in Massachusetts. In one town where they flatly refuse to have venereal disease in the hospital, I suggested to the hospital superintendent that one of two things would happen—either we would have venereal disease admitted to that hospital and a new dispensary connected with it, or we would have a new superintendent.

You can measure the size of our problem in another way. The reporting law in the United States shows in every state where it is actively working that venereal disease is the next most prevalent disease to measles. You know how much measles there is in your community, more or less, and you can easily estimate how much venereal disease you have to plan for. There is practically as much syphilis as tuberculosis, if we may judge by the reporting law. That is the size of our problem. That is why we are asking hospitals to come across and help in the campaign.

Take the question of expense. It is costing Massachusetts $750,000 a year to take care of its syphilitic insane, every bit of which could be prevented and every bit of which will eventually be prevented if Massachusetts goes over the top on this program. It will be prevented by the early treatment of the cases that are contracted, and, better yet, by the prevention of most of them. The army program has borne fruit, and I want to tell you right now that the United States Army, from records—not from guess or anybody's say-so, but from records—shows up today as the cleanest army in any nation in any war in history. We have said to thousands of men in Massachusetts in the last two months, "There is a lot of greasy Hun propaganda going the rounds. The thing to do to the next person who stands up and says the American Expeditionary Force is vice-ridden is to knock him down first and call him a liar afterwards." The best rate the army ever had was in 1916, when the incidence was 91 per thousand per annum. The rate in the American Expeditionary Force for the last four weeks has been under twenty. In other words, education pays and preventive work pays.

The reduction is not due entirely to the so-called "prophylaxis." That is one side of the work that you will hear criticised a great deal. This audience does not need to be given a definition of prophylaxis. We consider prophylaxis in the Army today to mean the entire program of education, vice repression, recreation, occupation, and treatment. We know, from the examination of thousands of women who have been picked up throughout the

United States since war was declared, that 95 percent have gonorrhea and 53 percent have syphilis. In other words, 53 percent have both. We give the men the facts and the figures, and tell them that "the fool who exposes himself to venereal disease must be assumed to have contracted venereal disease." We then give what we call today *early* treatment, and if we can get a man within one, two, or three hours of his exposure, we can prevent the major symptoms which lay him up for a period of two to three weeks in the camp. That is our program. Vice repression, as it has been carried out by the army, has done a tremendous amount of good. It has awakened a large number of communities. We have closed vice districts all over the country. I do not know what the last figures were, but the figures three months ago were eighty-odd red light districts eliminated. We have a saying in the United States Army that "you can't fight right under the Stars and Stripes if you take your pleasure under a red lantern."

I believe that the clinic should be a teaching center. It is among the infected individuals that you frequently get the best converts—the man who didn't know and the woman who didn't understand. We ask that the hospitals become an educational factor, that clinics be established, and that you, as individuals, go out and do missionary work. You can develop a community morale, or whatever you like to call it. I am sure it can be done in civilian life just as we have done it in the Army. Permit me to illustrate what I mean:

After I had shown the Army film, "Fit to Fight" to an audience in Boston the other night, a gentlemen came up to me and said, "That's a great film; some of that stuff you were talking must have been taken from the Army pamphlet, 'Colonel Care Says.' My boy is overseas in the 76th Division which trained at Camp Devins. I wish I had here the letter he wrote the other day. It ran something like this: 'Dad, one of our squad's in the hospital with gonorrhea. That is not why he went to the hospital, however. He went there because he had a broken nose and two black eyes. The rest of the bunch finished him when they found what was the matter with him, because, you know, as we said in the camp, the soldier who gets a dose is a traitor. You better tell mother; it will make her feel better.'"

The army has developed a spirit, a morale, which a good many people call morals and which we choose to call fighting spirit—"Get the Hun" stuff—that is perfectly marvelous. In going out and talking to the civilian community we have discovered that there is a wonderful demand on the part of the average man to have a vehicle to express the decent things that are in him. He has never been able to do it. We have always gone on the basis of a conspiracy of silence, a feeling that you must not talk about venereal disease, that you must not come out and say what is in you; it was not so long ago that if some young chap said, "Well, we won't go down the line tonight," the rest of the crowd would have laughed at him because he was a mollycoddle. Today in the Army that viewpoint is changing, and we are proposing to change it in civilian life as well. We are proposing to change it not only so that we may win the war, but that, when the war is won, we may be fit—fit for these boys when they come back. They go overseas boys and come back—men; they are men within a week or two after they get into the great adventure over there. If you talk to any returned men, Y. M. C. A. or K. of C. secretaries who have lived and worked with the soldiers, they will tell you how they have changed, and I promise you, as I have been promised by many of them, that, when these fellows come home, they will run these little United States and some of us who have not done our part in the clean-up will be required to take a back seat, whether we be doctors, hospital superintendents, or the common garden variety of citizen.

If only one-sixth of all the venereal disease treated in the United States Army is contracted by the United States Army, the other five-sixths must exist in civilian life. If five of the six cases are brought into the United States Army as drafted men, the question to be answered is: What can be done with them before they come into the Army? Let me illustrate what we are proposing to do in Massachusetts—and I think it will be done and can be done everywhere. The instruction boards, which are part and parcel of the draft boards, are telling men, those in Class 1 particularly, where they can get treated for their venereal disease if it is found that they are infected. Now we are proposing in Massachusetts to give the instruction board a list of all the clinics. We are proposing to ask the hospitals for more clinic facilities. We are proposing also to parallel this work in the industrial world and go into the factories and post the plant with the names of the approved clinics. Now when I say "approved" I mean this: We do not feel, either in the Public Health Service or in the office of the Surgeon-General of the Army that a clinic is worth while unless it has active social service connected with it. We can no longer stand up and say that the person who has venereal disease must be shunned or that he is not worth considering. Ninety-nine percent of them, whether they be men or women, did not know, and, in my private opinion, if it had not been for ignorance, 50 percent of them would never have had venereal disease. That being the case, it seems to me that we ought to be able honestly, wholeheartedly, and humanly to extend to them the right hand of fellowship. Do not condone what they have done, but on the other hand, do not hit them in the face and make them go and do it all over again. You can develop, at practically no cost, a venereal disease clinic in any hospital of any town of sufficient size. It did not cost the Brooklyn Hospital anything but heat, light, and rent. At luncheon today I just happened to hear about another pay clinic in this country that was realizing a sufficient surplus over expenses to make the executive wonder where he ought to spend some of the profits. Profits on venereal disease pay clinics are not large, but they should be devoted toward enlargement of the clinic, and not for other purposes in the hospital. The possibilities lying behind a clinic are tremendous.

Let me illustrate this point by telling you that in the year 1912 the venereal disease clinic of the Brooklyn Hospital Dispensary administered something over 2,000 treatments. In 1914, an effort was made to get the patients to continue treatment until discharged as cured. Please note that in the whole history of the institution—and I had been there six years before that—this was the first time we ever tried to get them to come back. In 1915 the clinic administered about 6,000 treatments; during that year more active measures were taken to follow up patients ceasing treatment before being discharged as cured, and further effort was made to impress upon the patients the necessity of keeping constantly at it until definitely told by the doctor that they were well. The result was the administration of 15,500 treatments in the year 1916, and, as an illustration of the automatic effect of constant effort, the year 1917 showed the remarkable record of over 30,000 treatments. In the same plant, in the same room, and with practically the same personnel, we doubled our service every year, applying the common

business variety of efficiency methods to the running of the pay clinic which made last year, with its maximum load of 30,000 people, practically self-sustaining. There are a number of clinics that are doing what the Brooklyn Hospital Dispensary did, but not so many as there ought to be.

It is interesting to know that as soon as you begin running a venereal disease clinic on an efficient basis and put a human atmosphere in it, there is an increase in the number of visits. The total number of visits is not due to new patients but to patients coming back, continually coming back, until a fair percentage of them are certainly rendered not communicable and a small percentage of them are cured. Those are all old figures. It ought to be the other way around—that a large percentage stick until cured and a small percentage quit after being rendered non-communicable but before being cured. The average number of visits per patient per year, according to most surveys, has been under fifteen in most clinics throughout the country. On the surface of it, you can see this means neither a reduction in venereal disease nor a cure of the cases. This condition must be remedied; the clinic must have efficient follow-up—efficient social service. Help the patients over the rough spots; finance them for a little while until they get back on their feet. They will respond. Most of them are honest. A good many of them would not have contracted venereal disease if they had not been fairly human. They make wonderful material to work with, and you will be well repaid for every cent you invest in them. We have lost almost no money in the administration of over $4,000 of the Brooklyn Hospital salvarsan fund. I don't believe we lost over $100. In the first $200 of the salvarsan fund we lost six dollars, and that first $200 was carried, some of it, six months. It can be done everywhere; Brooklyn is not an especially honest place or an especially human place. You can do it. I will guarantee that any social service worker who has done any work with venereal disease will find that these cases are keen to be cured when they understand the terrible consequences to their families and the people with whom they come in contact. In short, they are the finest little cooperators you could ever get.

If your state has a reporting law, see that it is enforced. Use your hospital facilities; use your personal persuasion with your hospital staff to jack up the doctors on their reporting. I am sorry to say that the biggest obstructionist we have run up against in this entire venereal disease campaign is the doctor. The doctors, however, have a peculiar warp in their mentality which makes them believe that they won't get patients if they report them. I have been all through it. I did not report my cases when the law first went into effect in New York City. In the Brooklyn Hospital Dispensary we used to write the report up after the patients had gone, because we were afraid that if they even saw a health department slip around the place they would not come back. Before things had gone very far, that was found to be an awkward and cumbersome thing to do; so we changed. After that we used to sit down with the patient and say: "Smith, where were you born?" etc.

"What do you want that for?"

"I am making out the health department report; you are going on record."

"What does that mean?"

"Nothing if you keep to your treatment, but a whole lot if you don't."

It works beautifully. I suggest that the hospital get busy and educate its own staff to comply with the law, and then let that staff go out and educate the rest of the physicians in your community. We are discovering that education of physicians by physicians helps considerably in Massachusetts. Surely it will help elsewhere.

How much venereal disease is there in *your* community? How much work there is for a clinic depends on so many factors that there is no use in discussing the matter here. I may say, as an index, that in Massachusetts from March to August there were reported 4,216 cases of gonorrhea and 1,755 cases of syphilis, and we feel satisfied that these figures cover only about one-third or one-quarter of the total number of communicable cases that should have been reported; in other words, there is a demand of about 25 percent of those cases for treatment. When you consider that the average case of syphilis needs from one to two years of pretty constant hospital dispensary care, you can realize that it doesn't take very long to develop a large venereal clinic. The superintendent of one of your hospitals said to me a few moments ago, "The clinic is growing so fast that I don't know what is going to happen." I know what is going to happen—as he can not put rubber walls on his building, he will have to build an addition to it.

We have threatened the Massachusetts clinics with an increase in business. The Boston dispensary has recently opened a special evening clinic for women—a thing that was once considered unnecessary and unheard of. It took a long time to convince the chairman of this meeting that it was a good thing to do. It took me nearly a week. That clinic is going to be doing a land office business within the next six months. Why? Because the community in Massachusetts is being educated in this subject and is desiring treatment. Communities throughout the United States, willy-nilly, will be educated on the seriousness of venereal disease and will demand treatment. It becomes necessary, therefore, for the civilian hospitals to anticipate the demand by establishing real, live, human venereal disease dispensaries. You need not face the bugbear of opening up your wards. If you will provide dispensary facilities, I do not believe that you will need more than one or two beds for an average dispensary. Some of the clinics that are running between three and four hundred treatments a day will need more than that. At the Brooklyn Hospital I do not think that on an average we would have needed more than three beds at any one time for our cases of straight venereal disease. The Massachusetts Homeopathic Hospital is planning to put in twenty-five beds, but that is from another angle.

We must have facilities somewhere for the detention, treatment, and, in so far as possible, rehabilitation of the unfortunate girls that we are picking up. Please note the term "girls." The women, the hardened prostitutes, we feel as a war measure need immediate humane jail attention; but the hysterical female of sixteen and seventeen, the chippy that we warn the Army against, must have some place where she can be taken care of for her venereal disease.

To illustrate what I mean: recently in Boston on three successive nights, the probation officer and the War Department protective worker for girls picked up at one of the beaches something in the neighborhood of twenty or thirty girls. About 35 percent of them had venereal disease and most of them were under seventeen, if my memory is correct. They were not prostitutes in the ordinary sense of the word; they were what one very efficient War Department protective worker for girls described as "patriotic prostitutes"—girls who have become hysterical over the army, who have not had education or instruction, and who do not know what it is all about. They are the girls you and I should have been thinking about in the

past. This is truly described in our War Department work as protective work for girls, but it is also the prevention of venereal disease. Protection against the whole pitiful thing is the major consideration. In so far as it is possible for the War Department to do so, we propose to carry its protective work up to the point where no more recruits are obtained for prostitution. It is a big job. It is a bigger job than we people in uniform can handle. When you realize that the Commission on Training Camp Activities, of which you have heard a great deal, and the War Camp Community Service work was primarily organized for the prevention of venereal disease, you will realize the tremendous size of the problem as we see it. There would never have been the big organization that exists today if it had not been for the one solitary purpose of preventing venereal disease. That organization grew out of conferences held in Washington to consider the ways and means of preventing venereal disease in the United States Army, and, as I have said before, the campaign has produced five lines of attack, (1) the repression of vice and its suppression when possible; (2) the instruction and education of the soldier; (3) the recreation of the soldier through the various activities of the Y. M. C. A., the K. of C., and all those organizations that are interlocked with the Commission on Training Camp Activities; (4) the occupation of the soldier; (5) facilities for treatment of the infected individual. We feel that we can keep him well occupied with his job when he gets over on the other side, we can keep him fairly well occupied with his job while we are training him here, we can keep him fairly well content with our huts and hostess houses and athletic games, we can keep him fairly well instructed—we can, in short, do all that is humanly possible to uphold our military responsibilities. We have motion pictures, pamphlets, lantern slides, exhibit placards, and all sorts of things; and we are doing a tremendous piece of work in protecting the soldier from the temptations of vice.

But what we want to do is to have the same work attended to in the civilian community. We want the civilians who are infected with venereal disease to be cleaned up before we get them into the Army; we want the civilians who are infected to be cured, even though they are not coming into the Army, so that they can do efficient work; and we want the hospitals to get into this fight and to combat venereal disease, so that we will have fighters fit to fight and workers that are fit to work; and then, when we lick this old Hun, as we are bound to do, we shall all be fit to win!

Abstract of Discussion

DR. JOSEPH BYRNE, New York: Major Thompson's paper has stated most emphatically that this is a question of public health and not one that concerns home education and religious training. I think that both the major and Washington, if Washington is sponsor for that statement, are absolutely wrong in that contention. Later on in his discussion, he has stated that the problem is too large for men in uniform to handle. This contains the gem of the real truth. It is admitted that the one way to prevent disease is by continence. Now, I am a psychologist, and I insist upon getting to the ultimate causes in every condition; the question brought up by abstinence involves intricacies in psychology that go back fundamentally and primarily to the basis of our education, which ultimately must be regarded from the spiritual standpoint, and rest on home influence and religious training. Major Thompson has talked about educating the legislator. Very well and good. I advise him to begin by educating the doctor, and particularly the men of his own specialty. The very men who have retarded advance in the hygiene of sexual disease have been the men of his own specialty who have always referred to these diseases as something very jocular, and have used in regard to them such terms as "When did you get your dose?" etc. That has been the real obstacle to progress in hygiene in sexual disease.

MAJOR THOMPSON: I most heartily agree with the speaker, and if I gave the impression that the War Department does not approve of home and religious training, I regret it because what I wanted to say was that the Army and Public Health Service proposed to keep away from that angle of the thing and leave it in more competent hands. I do not see, personally, how we can put the moral side and the religious side of this thing over as a Government proposition without stepping on the corns of numerous groups. I don't want my kid educated by some of your folks, and I presume that if some of your folks have children you would not particularly like me to educate those youngsters on the moral side and the religious side. On the public health side I think we have a little different ground. As far as my noble profession is concerned, with regard to venereal disease, I am and have always been disgusted with it. I thoroughly agree with the gentleman from New York. The psychology of this thing does go back to the home and to the religious angle of the thing, but the public health side is our affair. One of the chaplains in one of the camps remarked to me when I asked him what he thought of our campaign, "It's fine."

I said, "Don't you think we are a little too rough in the way we say things in the Army?"

He said, "No, I don't; you are talking United States, and United States is the language of the Army. Tell the boys the facts, tell them to them in words they can understand, but, for goodness' sake, keep off my grass and let me talk about morals and religion to them."

I said, "I'll meet you right there, Lieutenant."

DR. R. G. BRODERICK, San Francisco: We feel that San Francisco in this campaign is doing a great work. It is known as the California system of cooperating with the Public Health Service and the United States Government. There are two or three matters I should like to bring out. The major spoke of sending the prostitutes to jail, and keeping the patriotic girls, as he called them, for clinical and hospital care. In San Francisco we have established a ward in the San Francisco General Hospital, of which I am superintendent, in which we have at the present time about forty-five patients. We have adopted the scheme of arresting these women upon complaint from the Army or Navy under the general clause concerning vagrants. These women are brought before the court; under a state law all vagrants are examined for communicable disease. These women are taken into a clinic during the detention time of twenty-four hours, and upon the hearing next day they are not subject to bail. If the physician and nurse who are present state that the accused has gonorrhea or syphilis or chancroid, any communicable disease, in fact, the court suspends sentence and admits this patient, under the general act of the state on contagious diseases, to the city hospital, where she comes in as a patient; that is what I would like to underline. She is not under any police restrictions; there is no lock hospital or suggestion of anything like a penal or jail appearance about the ward. The patients have their own roof garden, their meals are excellent, and during the entire time that they are there social welfare work is carried on by the Home of Friendship and the Y. W. C. A.; these agencies have rehabilitated many of these girls and brought them back to their homes, and I am sure it is not such a hopeless task as it would appear. These women are, in my opinion, a great menace in the spread of venereal disease. I know of one case that transmitted over one hundred infections in one night. The problem is terrific, I think, for the military, and we have already received reports from the Government complimenting us upon this work. You spoke also of salvarsan. In San Francisco, fortunately, under the state law, we have the free administration of salvarsan through the clinics and through the hospitals. This is paid for by the state; it is a service to the public. Our clinics are run day and night. We have clinics that are carried on in the public health department, and the night clinics are splendidly attended. We have likewise the state registration law, and we use this as a little tip to the individual to come back and receive his treatment. We have also recently established a male ward for genito-urinary diseases, and all men who are found to have this disease are likewise treated in the hospital free of cost in the same way that you would control any other communicable disease.

MAJOR THOMPSON: Down in Washington, while we were working out a good deal of this, Major Sawyer and

I were called the roughneck twins. All we talked about was the California plan; on the basis of the state work that California did and the local work the Brooklyn Hospital did, most of our general ideas grew. California has done a wonderful piece of work. The director of venereal disease of Illinois was in Boston with me the other day, and they have just recently locked up twenty-seven men who were spreaders of venereal disease, incorrigibles not under treatment. We are picking them up daily in Massachusetts. We have free arsphenamine in Massachusetts, manufactured by the state. Every state should put venereal disease therapeutic measures on practically the same basis on which diphtheria antitoxin has been placed.

BASE HOSPITAL NO. 1, NEUILLY, FRANCE

Built for the Lycée Pasteur, Taken Over for Use as the American Ambulance, Base Hospital No. 1 Is a Monument of American Efficiency

Base Hospital No. 1 stands out among the show places in Paris. In every one of its various stages, even in the chrysalis stage when it was the famous American ambulance, our countrymen had a habit of pointing to it with pride. For four years since then American persistency and American effort have been conscientiously applied, so that today its staff can delight in the proverbial American superlative—it is the most modern war hospital in the world.

Perhaps the most interesting fact about this finest of all war hospitals is that it is and has always been the *American people's* hospital, supported entirely by private contribution. In 1914 "the Americans" took over the magnificent but unfinished Lycée Pasteur at Neuilly, completed it and put in six hundred beds for French and English wounded. With the entry of the United States into the war its capacity was increased to two thousand beds. Since the first American offensive it has served as a casualty clearing station with its two thousand beds taxed to capacity.

Over-taxed as it is, the whole building breathes an atmosphere of calm which, businesslike in the basement, and in the neat little meat shop and green grocery and kitchen which quietly prepare and serve seventy-five hundred meals a day, businesslike in the white enamel operating rooms,

Fig. 1. Base Hospital No. 1, formerly the American Ambulance at Neuilly.

becomes almost religious among the rows of dignified white faces in the wards.

Every man arriving at No. 1 goes through the same routine.

1. He is given a bed number; his valuables are taken away from him and put in a bag.
2. He is given a bath.
3. He is passed to the X-ray department, where in less than a minute the fluoroscope locates the foreign body.
4. He goes to the operating room. Every case is operated upon before being put to bed in a ward, a rule which during the rush means some 230 operations a day.

As for the wards, at first sight the layman thinks he is entering a machine shop when he goes into some of them, so different is an up-to-date ward for the treatment of bone fractures from the hospital ward that he knows. Here the bed and the boy in the bed seem quite incidental, half hidden as they are under the array of paraphernalia used by the modern surgeon in his treatment of broken limbs, a combination of the Carrel method with the discovery of Dr. Blake. But on closer approach the visitor notices that the pulleys are cords and not chains, that the weights are enclosed in linen bags, that the bulbs of Dakin solution are only glass and that the framework built high over each bed is of very light wood, not of iron. His first alarm for the safety of the boy underneath dies down somewhat, to disappear completely when Dr. Miller of the hospital staff patiently explains just how the system works.

The pathological laboratory, which decides when each wound in the hospital is to be sewed up transfers the daily records of each patient to a chart. When the curve shows that the "bugs" are down to one germ in five fields, no matter how large the wound is, it is sewn up tight. The radical departure from the procedure of before the

Fig. 2. The operating room at Base Hospital No. 1.

war, when wounds were left to granulate over and heal of themselves, saves thousands of units to the United States army. A function of the pathological laboratory whose importance cannot be overestimated is to match blood samples, a preliminary to all transfusion of blood which makes the success of this operation a foregone conclusion.

In another room the Connel apparatus for local anaesthesia is brought to one's attention. It is thanks to this apparatus, which throws a warm ether spray into the nostrils, that the face and jaw operations performed by Dr. Miller and other surgeons have attained an unbelievable success.

These operations are very often a collaboration between the surgeons and the dentists on the floor above. The hospital is delighted with its dental service, "the finest in all Europe." So great is this department's popularity that it has encroached upon the confines of the room next door, and when an American general decides to have his teeth fixed he is quite apt to be ushered into the institution's chapel, a dental laboratory on week days.

The management seems to have adopted Abraham Lin-

coln's idea—if you want to be sure a thing is done right do it yourself. They go on the principle that nothing shall get away from them. And indeed, except for the washing, which is the only contract let out, and the bread, which is the snowy white product so envied by all Frenchmen, made by Uncle Sam's bakery at Dijon, they do all of their own work themselves. Everything down to sore throats and colds in the head are cared for in the building, which perhaps accounts for the fact that there have been fewer cases of Spanish influenza here than in any other hospital in Paris.

Every square foot of space in the Neuilly hospital is interesting if only for its cleanliness, its immaculate order; and as one listens to the faint strains of military music floating through a window in the court yard one cannot help feeling sure that, if the father of modern medicine to whom the great new monument was originally dedicated could inspect the work being done in it by these strangers from across the seas, he would be as enthusiastic in his praise of their concerted effort as are his successors in France today.

SOME ECONOMICAL HOME-MADE DEVICES

Ingenuity Produces Useful Apparatus—Butterworth Hospital Has Many Improvements to Its Credit

A representative of THE MODERN HOSPITAL, on a recent visit to Butterworth Hospital, Grand Rapids, Mich., observed a number of useful and clever devices, which were found to be due to the inventive genius of the superintendent, Miss Elizabeth Selden. Miss Selden has very

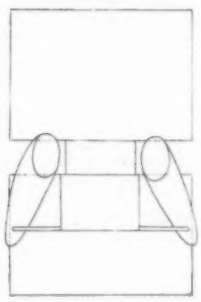

Fig. 1. Cart on large casters, designed for cooling and drying sterile dressings. The framework, of 2- to 3-inch wooden strips, is covered with open-mesh wire netting, which is also used for the shelves.

Fig. 2. One-piece maternity vaginal drape, composed of top sheet, laparotomy stockings, apron, and undersheet, to be adjusted so as to cover the patient entirely.

kindly furnished for the readers of THE MODERN HOSPITAL descriptions of some of these devices, as follows:

STERILE DRESSING CART

This cart (Fig. 1) is designed for cooling and drying sterile dressings when first taken from the hot sterilizer. The framework is made of 2- to 3-inch wooden strips. The framework is covered with open-mesh wire netting to allow free circulation of air. The shelves are also made of the wire netting fastened to framework. The cart is placed on large casters which aid in moving it about.

MATERNITY VAGINAL DRAPE

This one-piece maternity vaginal drape (Fig. 2) entirely covers the patient. The top sheet, laparotomy stockings, and under sheet are all joined, and can be adjusted at one time. The drape is held in place by an apron, which is pulled up under the patient and fastened in front with tapes. The patient can extend or flex the knees without disarranging the drape and still preserve a sterile field.

There is a vaginal opening large enough to allow for the passage of the child. After the drape is adjusted, the corners of the top sheet, laparotomy stockings, and under sheet are fastened together.

ETHER FUME APPARATUS FOR RHINOLARYNGOLOGICAL WORK

This ether-fumes apparatus is used extensively for nose and throat operations. It is described in the legend (Fig. 3).

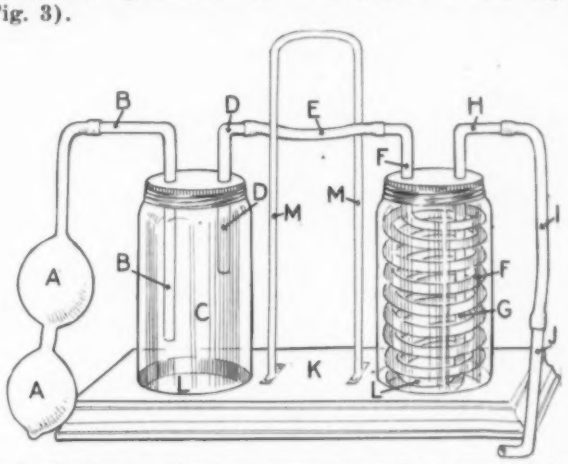

Fig. 3. Hand-power ether-fume apparatus, used for nose and throat operations.

A. A set of double rubber bulbs used for forcing the air through the ether, vaporizing it.
B. Metal tube leading into the ether jar or can.
C. A glass fruit jar or can with a screw top, which contains the ether. The cover has two openings, one through which the tube carrying the air passes, and the other the tube through which the ether fumes escape.
D. The metal tube through which ether fumes escape.
E. Rubber connecting tube.
F. Metal coils, through which ether fumes pass and in which they are heated.
G. A glass jar or can containing hot water, in which coils containing ether fumes are immersed.
H. Outlet from coils.
I. Rubber connecting tube carrying the heated ether fumes.
J. A metal mouth-piece, through which the fumes escape into the patient's mouth and lungs.
K. A heavy wooden base block upon which the apparatus stands.
L. Round openings into which the jars fit.
M. Handle for carrying apparatus.

Building Program for Hospitals for Mental Diseases in New York State

The end of the war has brought about a vigorous campaign for pushing the building program for hospitals for mental diseases in New York State on the part of the State Charities Aid Association. There is an overcrowding of 6,455 patients, which amounts to 22.3 percent, in the hospitals of New York. The Hospital Development Commission is studying and planning systematically for more accommodations, and the state is now committed to the following building projects: the erection of a new state hospital at Creedmore, on the outskirts of Brooklyn; the erection of a state hospital at Marcy, near Utica; the establishment of a psychopathic hospital in New York City; the establishment of another state hospital in the metropolitan district to take the place of the abandoned Mohansic institution.

The Seaside Hospital at Bagnoli

The seaside hospital at Bagnoli was established in 1906 for the treatment of rachitic, anemic, and paralytic patients. The institution has lately been greatly enlarged by the addition of a new pavilion capable of housing 150 patients. There will be surgical, orthopedic, serotherapeutic, and heliotherapeutic divisions. The new buildings will be devoted exclusively to the treatment of male and female tuberculous patients. The hospital is described in a recent issue of the *Policlinico* of Rome.

ASSISTANCE OF PUBLICITY TO HOSPITALS*

Civil Hospitals Must Gain Confidence and Support of Community—Suggestions for Successful Advertising

By R. S. SOMERVILLE, Director of The Vancouver General Hospital

It is undeniable that the great majority of people in this province know more about the work being done in the base hospitals at the front than they know about what is being done in the hospitals of the province. The reason is that their interest has been enlisted in the base hospitals because of the many stories written and told about them. For every item they read about a civilian hospital they probably see twenty dealing with war hospitals.

Support is largely based on two things—knowledge and confidence. If any of our hospitals are unable to stand the test of taking the public into their confidence regarding their work and affairs generally, there is something lacking. Perhaps the reason why some hospitals seek no publicity is that they have enough sense to keep silent. But one feels sure that such hospitals are not represented here today, nor do they exist in this progressive province.

Publicity does and will do two things for hospitals: it educates and it enlists support. There can be no question but that both aims are worthy and that the two are closely related. The popularizing of knowledge as to the work being carried on in a hospital in the treatment and cure of diseases is as necessary and legitimate as the advertising of its wares by an industrial concern. In both cases it means the securing of support. Most of the hospitals in British Columbia are public hospitals which have to depend on public grants and voluntary gifts. They can not collect all they earn, because they are at all times dealing with the poor and unfortunate. But the public can always be induced to give to worthy objects.

Hospitals, whether in large or small centers, carry on a work of vital importance to the community. The chief asset of a community is its health. The work of alleviating pain, healing the broken, and restoring the sick to health and vigor is not only of prime importance but is never-ending. Institutions of this kind can have no holidays nor can they declare a walk-out. Public hospitals can not refuse admission to the sick. With these facts in mind there is no reason why an apologetic attitude should be assumed in inviting support. These institutions must be maintained at a constantly increasing state of efficiency, and this costs money.

The attitude of hospital managements in general regarding publicity has undergone a marked change in the past few years. The absolute need of it is recognized. Not so many years ago the interior of a big hospital was as unknown to the average man as the inside of a penitentiary. It was a close corporation, with the result that ignorant gossip had full play. The Vancouver General has had its own experience along this line, and even yet one occasionally hears the most absurd stories down town. I suppose that this is inevitable, but constant and well directed publicity will consign most of these fairy tales to the garbage heap.

On the advent of Dr. MacEachern to the general superintendency of this hospital, he inaugurated a new order of things which has borne much good fruit. He has always found time to talk to a newspaper reporter and to send him on his way rejoicing. He has made friends among the local newspaper men, with the result that he is able to command much valuable publicity in the press. By this means he has been able to put a quietus on many yarns which had no foundation in fact.

Public support will follow public interest. Once a man or woman becomes interested in a hospital, the next step which is almost certain to follow is that he or she will support it in some form or other. With the exception of patients and their friends, there is little direct contact between the individual and the institution. Publicity bridges the gap between the two. Outside of what may be regarded as self-interest on the part of the management, the latter is under moral obligation to provide full information as to the work of the hospital. It is a duty to the public. One effect of publicity is that it today attracts to the hospital hundreds of patients who were formerly treated at home, in many cases much to their own detriment. The more that is known about hospital work and its steadily increasing efficiency, the better it is for the whole community.

Some definite person should be in charge of publicity. A thousand and one incidents occur during a single week at a hospital, which, if told, would excite interest and comment. Neither humor nor pathos is lacking. Under a constant routine, hospital officials are apt to grow blind to the features—picturesque, humorous, pathetic and romantic—that have new values and that are entirely unfamiliar to outsiders. Here is where a friendly news writer may well be called upon to assist, and in every community such an individual may be found. The admitting officers, house staff, nurses, social service workers and others connected with the hospital should be encouraged to notice and report anything of possible news value.

All this refers to articles in the press, which, after all, is the most direct and most successful method of publicity. But there are many other avenues for reaching the public which should be utilized to advantage. Publication of monthly and annual reports should be insisted upon, care being taken not to make them too technical or lengthy. Letters of appeal are an effective means of publicity. Illustrated folders for direct distribution in public gatherings and public places are likely to do much good in calling attention to the equipment and achievements of the hospital. These might also be mailed to prominent citizens. Occasional receptions direct attention to the personnel of the institution and extend the circle of well wishers. Last and best of all, are the enthusiastic encomiums of former patients on the way the hospital is conducted. By their united verdict an institution must stand or fall.

The success of this convention is in itself a striking testimony to the effectiveness of publicity.

I can do no better in closing than to quote some remarks of a well-known New York hospital authority on this subject. In a recent address he said:

"Cultivate good will. It is too much to expect that the general public will retain many statistics about your hospital. People read so much and so carelessly that their minds become like sieves, often with big holes in them. But, though they do not retain many facts, they do retain impressions, and it is their impressions on which they act. See to it, therefore, that, with the facts to justify it, you establish a reputation for doing a large work, vital to the community and permeated with genuine sympathy. There is a widespread impression that a hospital is a cold, cheerless, impersonal place, wrapped in officialism and tied up with red tape. As a matter of fact, a hospital is a place where people come in pain and find relief, come in weakness and go forth strong, come despondent and return with courage. There are few families that do not have grateful memories of what a hospital has done for one or more of their circle. Capitalize this feeling."

*Address delivered before the British Columbia Hospital Association, June 27, 1918.

QUERIES AND ANSWERS

A Wainscoting That Does Not Come Off

To the Editor of THE MODERN HOSPITAL:

I should like very much to know of a good wainscoting for the walls of an institution for children which can be trusted not to break and wear off like ordinary plaster. The children in my charge are many of them up and around, and the problem of the walls is a serious one.

SUPERINTENDENT OF CONVALESCENT HOME FOR CHILDREN

We believe that you will be interested in the experience of an eastern institution for the feeble-minded in which cement dado is used on the lower third of all the walls. An account of it is given in the September *Institution Quarterly*, published by the Public Welfare Department of Illinois, in which the author says:

"It was indeed a satisfaction to visit room after room, and not see any plaster off."

Cement dado is not hard to make, and it makes an excellent wainscoting if applied by an experienced plasterer. Good results depend on the care and experience of the journeymen, and users should follow the directions implicitly.

The Keene cement must be applied in a very thin coat which should be thoroughly trowelled and worked into the surface of the Portland cement base, and only the very best of ingredients should be used. With these precautions borne in mind, the plasterer should have no difficulty in following these directions:

A very firm backing is required—a solid brick or terra cotta partition, not wire lathing or anything of that sort. This wall must be thoroughly wet before the first coat is applied. It should be thoroughly soaked at about half-hour intervals on the day before the mortar is put on, either with a hose or with water applied with a brush or a pump.

The cement is applied in three coats—the scratch coat, the "brown" coat, and the skim coat. The scratch coat consists of not more than two pails of lime to every barrel of Portland cement, and a small amount of clean, sharp sand. In applying this coat, bear in mind the precaution about thorough trowelling.

The "brown" coat, which is applied within two or three days of the first coat, consists of equal parts of Portland cement and sand, which is mixed in small quantities just before the coat is put on. The "brown" coat can be put on within two or three days of the first coat.

The skim coat is made of the three casks of Keene's cement to one cask of Portland. In applying this coat, the following points should be observed: no cement should be applied to the wall except that which has been mixed immediately before using; only a small amount should be mixed at a time; it should be thoroughly mixed dry so as to obtain a uniform color before it is wet; a very little should be wet up at a time and applied so as to get the first set; it should be worked with a trowel and brush and plenty of water until it is perfectly hard and smooth-trowelled. The skim coat should be one-quarter inch thick.

There are a number of different makes of Keene's cement, both in this country and Europe, and in some cases their specifications differ slightly from those given above. In those cases it is best, of course, to follow the directions of the manufacturer whose cement you are using.

Country Branches for City Hospitals

To the Editor of THE MODERN HOSPITAL:

Should city hospitals have country branches? A city hospital caring for 400 acutely sick patients has been urged to establish a country branch. Is this desirable, and if so, on what grounds?

SUPERINTENDENT OF CITY HOSPITAL

The ordinary hospital ward, occupied mainly by patients acutely ill, is an undesirable place of residence for anybody except one who is in need of medical supervision and nursing care, and who cannot otherwise obtain such care. Justification for the prevailing type of ward is found in the limited resources of hospitals, coupled with the necessity of caring for large numbers of patients. A better or more highly individualized system of housing the sick would be relatively costly. We therefore build hospital wards, and exert ourselves to overcome, as far as possible, the dangers of infection and of vitiated air. But no healthy person would choose a large hospital ward as a sleeping room; and no convalescent, able to be out of bed, should be kept in such a ward during the day, or compelled to sleep there surrounded by acutely sick people at night.

In a city hospital caring for 400 patients, a census of convalescents (that is, of patients no longer needing confinement in bed) would show that there is an average of from 60 to 120 such patients in the wards at all times. These, for the most part, are patients recovering from surgical operations, who are in need of surgical dressings, and who, for this reason, cannot be dismissed from supervision.

Actual experience in London, where many hospitals have convalescent annexes in the country, has shown that when patients are removed from city wards to more wholesome country surroundings, wounds heal more quickly, and the recovery of bodily and mental tone is hastened.

The cost of caring for individual convalescents in a country branch hospital would be less than the per capita per diem cost in the parent hospital. A given period of treatment, divided between part-time in the city hospital and part-time in the country branch, would cost somewhat less than the same period of treatment in the city hospital alone. The country branch hospital, therefore, may be described as a means of obtaining better therapeutic results, in equal periods of treatment, at less cost; or it would produce still better therapeutic results in slightly prolonged periods of treatment at the same cost per patient.

Independent convalescent hospitals do not, as a rule, undertake to care for patients during the earlier stages of convalescence, when medical supervision and surgical care continue to be necessary.

S. S. GOLDWATER.

Make Use of Newspaper Publicity

Advertising is said to pay; why should it not pay for the hospital? The hospital can get some very good advertising at practically no expense in seeing that the local newspapers and magazines have stories of general interest to the public. The superintendent is always too busy to "nose out" such stories, and usually has no particular ability as a publicity agent anyway. Why not develop a good newspaper correspondent among your office force for this purpose?

Fig. 1. Cage ball for weak hearts.

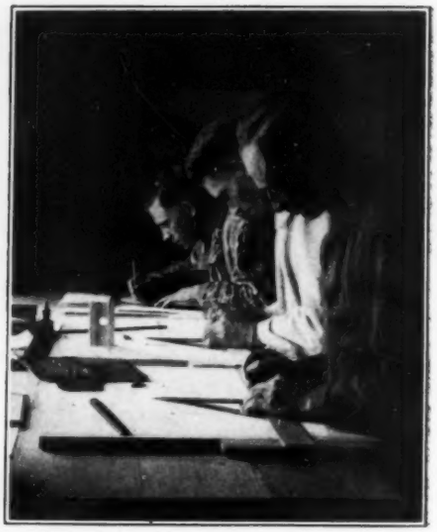

Fig. 2. Mechanical drawing will be their means of livelihood.

In Our Reconstruction Hospitals

These pictures, reprinted here through the courtesy of *Carry On*, tell plainer than words what is being done for our disabled soldiers and sailors in the many reconstruction hospitals all over the country.

Cage ball for the men with "invisible wounds"—heart action that needs strengthening in this case—and practical training in mechanical drawing are among the many methods used to put our injured men back on their feet physically and mentally. These men playing ball at Lakewood, N. J., and absorbed in the class in mechanical drawing in the Letterman General Hospital, San Francisco, seem to find the work of rehabilitation pleasant as well as profitable and necessary. The San Francisco hospital offers its soldier-patients a wide range of curative and prevocational work. "An ear for an eye" might be the watchword of the blind man who is learning piano tuning. This trade requires some mechanical ability, but is not difficult to learn for the man who has a good ear. Men who were tailors before the war are teaching others who want to learn this trade at Lakewood where there is a tailor shop in which the returned soldiers do the fitting and pressing for the post while they are perfecting themselves in their new trade. Bedside cartooning is one profitable diversion which passes the time for the patients in the wards at Lakewood. One soldier is seen teaching another the foundations of the art.

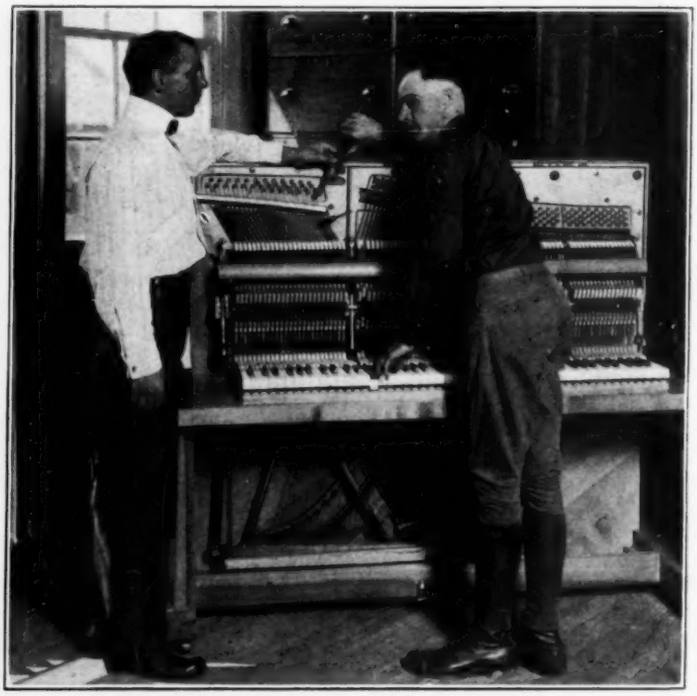

Fig. 3. Both instructor and pupil are blind but the work goes well for all that.

"Not an appeal for for charity," says the Government on the cover of the pamphlet, "What the Employers of America Can Do for the Disabled Soldiers and Sailors," and it is work like this which is the basis of the new attitude toward our veterans.

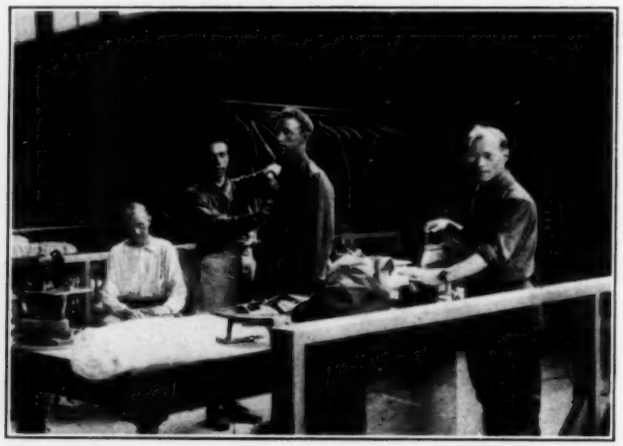

Fig. 4. In the tailor shop.

Fig. 5. Bedside cartooning.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

DIAMOND-CUTTING FOR DISABLED SOLDIERS*

An Interesting and Remunerative Occupation Carried On Under Best Hygienic Conditions—Convincing Testimonials from Workers—Steps In the Process

Early in the war Mr. Bernard Oppenheimer, the well-known diamond merchant, who had fought in the ranks during the South African war, conceived the idea of bringing back to this country an industry which for many years had been carried on principally in Holland and Belgium. He determined, if possible, to make it the means of employment to thousands of disabled soldiers and sailors.

With this idea he acquired a large tract of land in the Lewes-road, Brighton, and set about erecting a building which would be suitable for the carrying on of that industry, namely, the cutting and polishing of diamonds. The building having been erected, Mr. Oppenheimer was fortunate enough to find in Dr. Beckit Burnie, the principal of the Brighton Technical Schools, a gentleman who was eminently qualified to become its manager, and the Ministry of Pensions, having examined the scheme and given it its cordial approval, sent down a certain number of disabled soldiers, who at once commenced their training under the experts and foreman supplied by Mr. Oppenheimer.

It was in August, 1917, that a commencement was made with ten men. So successful was the experiment that a further area of land was acquired, and a range of buildings erected in which employment might be given to at least two thousand men. Every floor of these buildings consists of one long and lofty room, with a glass frontage, as the maximum of light is essential to the industry. Over four hundred disabled soldiers are now engaged in diamond cutting and polishing at the Brighton works, and the buildings now erected or in course of erection will accommodate a thousand more.

The industry is especially adapted for disabled men, and more particularly for the man who has lost a leg and finds it difficult to stand for any length of time without a sense of weariness, and often one of pain. It is a sitting occupation, one which is carried on in a bright and healthful environment, and it has this additional advantage—that the workman can perform his task effectively while enjoying the solace of tobacco.

The cutting and polishing of diamonds is not only an interesting occupation, but is one which is carried on under the best hygienic conditions. It is an occupation which compares favorably in the important matter of pecuniary reward with most of the trades recommended for disabled men. During the period of training, which is from four to six months, the wages paid are $6.87, but to every man engaged a minimum wage is guaranteed of $10 a week. The average wage now being paid to the men is $15 a week, and the experienced worker who shows diligence and ability may rise rapidly to $20 a week.

I turn from the economic figures to the human ones and mingle with the men who are sitting at their work with the sunshine of a Brighton November morning streaming in upon them. They lay aside their cigarettes, but not their work, to talk to me. Here is a disabled soldier handling a forty-carat diamond and surveying it with the eye of an expert before operating upon it. At $500 a carat this diamond is worth $20,000, and with skillful cutting it will be worth a great deal more. This man has come from the dragoons to the diamonds. He was a dragoon before the war. He was wounded and permanently disabled in the first battle of Ypres. It was while at Roehampton, being fitted with an artificial leg, that he heard of the diamond cutting. Before the war his pay was 25 cents a day; during the war it was 36 cents, and, now that he has lost his leg and can not go back to the profession of arms, his pay is $15 a week.

Here is another disabled soldier. In 1915 he was in a sale-room in London. Then he joined up, was wounded on the Somme, and lost a leg. He can not go back to his old work. His disablement prevents it. He was earning $10 a week before the war. When he went to the Ministry of Pensions for information as to where he was likely to get employment, he was recommended to apply to the manager of the Oppenheimer Works. He did so, and he is now earning $15 a week; and probably before the end of the year he will be earning $20.

Sitting next to him is a disabled soldier, who tells me that before the war he was a coal miner, but he prefers his present occupation. "In the old days I used to stand and sweat, sir. Now I sit and smile." He prefers the white diamonds to the black ones.

Another disabled soldier who is cutting a diamond tells me that he was a land surveyor when he joined up. He was disabled in August, 1915. He lost a leg, and when he was discharged that effectually prevented him from going about to survey land. All he could do was to survey the situation. He was at a loose end when he heard from the information bureau at Roehampton of a trade that would give him a living. He came to the Oppenheimer Works, has now learned a trade which will last him his life, and he tells me with a smile that, although he has lost a leg, he has fallen on his feet.

There are three processes in the conversion of a rough stone into flashing brilliance. The first one consists in cleaning the coarse stone of defective parts and splitting off the flaws. The second is the cutting, which gives the stone its form and in a rough way the number of faces which it shall have. Finally, there is the polishing, which gives to these faces their clearness and brilliancy.

The sawyer, when he finds a flaw, commences his work by inserting the diamond into a fusible cement which hardens as soon as it is cold and supports the stone. The cement is lodged in a kind of cup at the extremity of a solid handle, which the workman holds in one hand. He then takes in the other hand a second instrument furnished with a diamond recently cut, the edge of which projects sharply outside. Supporting the two tools on the border of the box placed before him on the table, he communicates to them a see-saw motion, rubbing on one of the stones the sharp end of the other. He then introduces a sharp blade, which he strikes lightly in order to separate

*Extracts from an article by George R. Sims in the Daily Telegraph, London, December 4, 1918.

the two pieces. Sometimes diamonds are sawn with a finely-tempered bow-saw moistened with olive oil and sprinkled with diamond dust.

The cutter uses somewhat similar instruments to the sawyer. He only forms about one-half of the faces, leaving it to the polisher to form the remainder.

The box over which the sawyer works is provided with a double bottom, the first of which is pierced with holes like a sieve. The powder of the diamond resulting from the rubbing falls into the second compartment, and the larger fragments rest on the sieve, where they can be easily collected in order to be cut again. The clips alone from one large diamond which was cut at the Amsterdam mills are said to have been worth $40,000.

Diamonds are polished on an iron plate rotating rapidly and impregnated with diamond dust and oil. The diamond that is to be polished is set in an alloy of lead and tin, which is given the form of a cone, of which the stone occupies the summit. The operation either for large or small stones is about the same. The worker may sometimes be able to polish several stones at the same time. The operation takes a long time and requires the exercise of extreme patience, but the result is certainly in every sense of the word a "brilliant" one.

From the beginning to the end everything depends upon the skill with which the diamond workers exercise their art. And all these skilled processes are now carried on at the Brighton works by disabled soldiers who before the war had not even a nodding acquaintance with precious stones.

* * * *

GOVERNMENT PLANS FOR DISABLED MEN

These Include Treatment, Artificial Limbs, Training, Financial Assistance, and a Job—Army, Navy, War Risk Insurance Bureau, United States Employment Service, Federal Board for Vocational Education, and Red Cross Are the Agencies Involved

There has been issued for general distribution, by the Red Cross Institute for Crippled and Disabled Men, a statement on the provision being made by the various government departments for the returning disabled soldier or sailor. It appears as a small folder and also as a poster for display on bulletin boards, in windows, etc.

The statement is addressed as much to the public as to the ex-service men themselves, for it has been found in the experience of the allied nations that public understanding and appreciation is essential to the success of any government program aimed at the restoration of the injured to self-support.

The statement, entitled "Facts of Interest to the Disabled Soldier and Sailor," has been approved as to accuracy by the various government departments concerned. The text follows:

The military and naval authorities will provide him, not only with ordinary medical care, but also with special treatment to put him in the best condition possible to return to work.

While he is under treatment in reconstruction hospitals maintained by the surgeon-general, United States Army, and the surgeon-general, United States Navy, he will be offered educational advantages, which will promote his recovery, put his time to good use, and improve his chances for the future.

If he has lost an arm or a leg, a temporary artificial limb will be furnished him at as early a date as possible, while he is still in the hospital. Later a permanent artificial limb of the most modern type will be provided by the Bureau of War Risk Insurance. It will be kept in repair and replaced when worn out, as long as he lives, at government expense.

After completion of treatment and discharge from the army or navy, if he remains permanently disabled, the Bureau of War Risk Insurance will pay him until the end of his life a disability compensation, which is intended as an aid in working out his future plans.

This compensation for disability is paid whether or not he has taken out a policy of war risk insurance.

After discharge from the service, if he is disabled to any considerable degree—so as to be entitled to compensation for disability—he is offered training for a skilled job in which his injury will not prevent his earning good wages. Experience of our allies has shown this to be entirely practicable.

Compensation for permanent disability will not be reduced or in any way be affected by what he may be able to earn. It is determined by his physical injury alone. He may have earned before enlistment $20 a week and be able after disability, by reason of having taken a course of training, to earn $40 a week, yet his compensation will be paid him just the same.

Training after discharge will be provided him at government expense by the Federal Board for Vocational Education, charged by Congress with the responsibility of restoring him to self-support.

During the course of training, in order that he may have no financial worries, he will receive either the same pay as during his last month in the service or his compensation for disability, whichever is larger. His family will continue to receive the same allotment and allowances as when he was in the service.

It is greatly to his advantage to avail himself of all opportunities of training, either before or after discharge. While it may be easy now for even a disabled man to get a well-paid but temporary job, the labor situation will be different in the years after the war when normal conditions return. If he wants to be independent and self-supporting in the future he must prepare now so that later on he will be a skilled worker and his services will be in demand.

When training is completed the government will find for him a desirable job. This service will be performed for him by the Federal Board for Vocational Education in cooperation with the United States Employment Service.

During the period of training and after, the American Red Cross, through its home service sections, will look after the needs of his family, and advise on any points in connection with which it can be helpful.

After he returns home and enters on employment the home service section of the American Red Cross will stand by as a big brother to help in any possible way to make successful his change from the world of the soldier back to the world of industry and commerce. In all this work the Red Cross recognizes the leadership of the government.

Employers are giving careful thought to the selection of jobs in which his services can be used to the best advantage—in which he can be paid good wages and earn them. The employers realize that what he wants is not charity, but the opportunity of self-support.

Labor unions are giving thought to the ways in which disabled men may best be replaced in their trades, and are prepared to assist the readjustment to the greatest possible degree.

The people of the United States are resolved that he shall have every advantage within their resource and every chance to make good and get back on his feet.

America is looking to her men, disabled in the splendid job overseas, to "carry on" after their return home, to continue into civilian life the standards of self-respect, honor, and courage of the A. E. F. She is looking to her disabled men to rank among the most useful and respected members of the community.

A friend comes as an ambassador from the heavens, bearing certain gifts of character or of service. Expect not all gifts by the hands of one ambassador, but receive gratefully whatsoever is brought to thee. Flout not the King's gifts because they are not other or more. If thou hast need of other gifts they will come in due season. Count what thy friend is to thee, and say naught of what he is not.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

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A SQUARE DEAL FOR THE PUPIL NURSE

Three Reasons Given for Failure of Nurses to Win Shorter Hours—Tradition, Fear, and Expense—Public Opinion Will Force a Reform If It Does Not Come from Within

By CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island, New York

The war is over, but coupled with the enormous sense of relief and satisfaction that accompanies this thought there is a keen realization that the reconstruction problems facing nursing schools are numerous and difficult.

There is no denying the awakened interest and *unrest* existing in our schools. The appeal of our Government for nurses, and the splendid response to that appeal, plus the publicity work of the nursing committee of the Council of National Defense, has stimulated many intelligent women to think of nursing as a field for education and future work. One of the inevitable results of this awakened interest has been to show up the weak places in our system; we have been favored with much wholesome criticism, which it would seem the part of wisdom to meet frankly and disarm, either by showing it is not deserved, or by changing the conditions which justify it. Out of this mass of criticism it is easy to select one condition which all critics attack most vigorously. I refer to the hours of work exacted of our pupil nurses. Just here it may be well to consider that the provision of proper care for the sick in our hospitals means continual care for twenty-four hours of every day, for seven days of every week, and for fifty-two weeks of every year. The easiest solution of this problem is to have two groups of workers, each covering a period of twelve-hour duty. As the easiest solution of any problem is the one most commonly accepted, this twelve-hour duty, modified by various concessions in the way of "hours off duty," is the one in vogue in an overwhelming majority of our nursing schools. It is true that some schools have been much more generous in their arrangements for hours off duty than other schools, but it is equally true that "hours off duty" refer almost invariably to day duty and not to night duty. In consequence an enormous number of schools are exacting eighty-four hours per week of night duty from pupils who are required to attend classes, prepare lessons and pass examinations! The system of twelve-hour duty has persisted despite the fact that for more than twenty-five years nurses, both individually and through their organizations, have agitated and worked for the adoption of shorter hours. It would seem that our efforts have been only half-hearted because one year ago just ten nursing schools in all the United States exclusive of California (where the hours are regulated by law) reported a system of eight-hour duty. Ten schools out of a total of 1,570!

Surely this should prompt us to analyze the reasons for our failure, and they appear to group themselves under three main headings:

1. *Tradition.*—Those who are familiar with hospitals and nursing schools know that the strongest deterrent to progress is found in tradition, and one of our most pernicious traditions has been that nurses should work until they drop, and then get up and work some more, and that to do anything less is unprofessional! Add to this, the attitude which accepts hard conditions as inevitable, and feels that to complain of them is disloyal, and you have a bulwark which has served well to justify and perpetuate a system that secures a maximum amount of work from a minimum number of pupils. This tradition, like many others, does not stand exposure to the limelight of public criticism. In an effort to bring the advantages of nursing education (and they are numerous) to a wider public, I have talked with alumnae members, with high school pupils, with mothers, with teachers, and club women. Invariably the long hours are attacked and tradition doesn't help one to defend them.

2. *Fear.*—Many superintendents who honestly believe in a system of shorter hours and who have willingly conceded them to other groups of workers in hospitals are afraid to extend this ruling to the pupil nurses, because of the shortage of applicants. They argue that "they can not shorten the hours, because it will take more pupils and they can not get enough pupils even now." What they fail to see is the viciousness of the circle; they can not shorten the hours because they can not get enough pupils and they can not get enough pupils because they *do not* shorten the hours. It is well known that the hospitals which maintain nursing schools of high standards have no shortage of applicants. The Army School of Nursing, which was organized to meet the need of the Government for a large nursing body, to be provided in the shortest possible space of time, startled us all by announcing an eight-hour day for its pupils. Here, if anywhere, one might suppose long hours would have been justifiable, and would have been supported by public opinion. But the Government has stood for a shortened working day, not only for its employees, but through President Wilson's championship, for labor at large. Could it do less for pupil nurses? It seems only reasonable to think that the shorter hours influenced to some extent the enormous response of applicants to this Army school. It seems equally reasonable that if all groups of people to whom the nursing appeal is directed attack the system of hours, our *fear* should be to maintain such a system in the face of general criticism, and our aim should be to meet the criticism by as prompt concessions as are possible without hardship to our patients.

3. *Expense.*—Almost all hospitals face a deficit at the end of each year, and the problem of introducing any change which involves additional expense is one that calls for very careful planning on the part of those entrusted with hospital funds. It is true that shortening the hours of duty will necessitate an increase in the number of pupils, though this increase will probably not be so great as may appear at first sight. We have learned that in other lines of work, shorter hours have increased the amount of work, improved its quality, and lessened the time lost because of illness. No amount of foresight or careful planning will entirely eliminate such unusual demands as the recent epidemic made upon nurses. One questions

whether nurses as a class would not have stood the strain of this emergency better and whether the serious illness and loss of life would not have been less if long hours of duty had not added the big factor of fatigue to their other handicaps.

It is inevitable that an increase in the number of pupils will increase the expense of maintaining a school but the question is *not* alone, "Can we afford to do it?" It also resolves itself into, "Can we afford *not* to do it? Can we afford to go on ignoring a just cause for criticism? Can we afford to lose the intelligent young women who would enter our schools if the hours were made shorter? Can we afford to go on, as one health commissioner publicly stated a few weeks ago, 'working pupil nurses such long hours that they are more susceptible to certain forms of disease than other workers?' Can we afford to ignore the lessons of the epidemic? Can any one hospital afford to ignore this question when it is inevitable that some at least will hearken to it, will shorten their hours, and will just as inevitably increase their number of applicants? Can we afford to train pupils in an atmosphere that savors of exploitation, and then elevate our virtuous eyebrows in surprise when a small number of graduates take advantage of such an unusual opportunity as the epidemic offered to exploit the public?"

Two months ago this magazine called for data from institutions in which the eight-hour day has been introduced. So far as one can judge, responses have not been forthcoming. And yet this problem has been the subject of much heated discussion, particularly during the past year. Moreover, one finds great unanimity of opinion regarding the desirability and justice of this measure. Why are we so slow about translating our beliefs into action? Would it not be well for the officials of each and every institution which depends upon a nursing school to analyze the motives which are holding them back? If these motives group themselves—as we believe they will—under our headings of tradition, fear, or expense, are they worth the ever increasing criticism of a thoughtful and awakened public? Are nursing schools to be the last to fall in line and adopt this reform? Will it come from within our ranks, or be forced upon us by an aroused public opinion which will not see pupil nurses worked for longer hours than the rank and file of laborers?

* * * *

Correlating Nursing and Medical Care

The subject matter in Dr. Paul H. Ringer's book, "Clinical Medicine for Nurses," is carefully selected in regard to relative importance from the medical as well as from the nursing standpoint. The material is well organized, presented in a systematic, concise, and concrete manner, entirely within the range of the apperception of the average pupil nurse.

Special emphasis is put on the observation of symptoms and detection of complications in the course of the various diseases. This, from the nursing standpoint, is extremely important and furnishes an excellent basis for close correlation of the nursing with medical care.

A brief description of the most important anatomical and physiological facts is given at the beginning of each topic, which aids greatly in making clear the pathological and clinical picture of the different diseases discussed.

The glossary at the end of the volume, containing a list of medical terms frequently used and very often misspelled, is exceedingly helpful.

Clinical Medicine for Nurses. By Paul H. Ringer, M.D., Member of Staff of the Asheville Mission Hospital, Asheville, N. C. Illustrated. Cloth, pp. 269, $2.00 F. A. Davis Company, Philadelphia, 1918.

Practical and Well Organized

A well written book for classes in home nursing is the "Text Book of Home Nursing," by Eveleen Harrison.

The material is especially well organized and presented in a simple popular style, readily understood by groups of girls and women of varying educational and social advantages.

The carefully worked out summaries at the end of each chapter aid greatly in emphasizing the important points.

The practical suggestions throughout the book are good, but could have been made stronger by the support of definite scientific reasons. It would have added to the value of the book if the nursing procedures described had been accompanied by illustrations representing the different steps in the carrying out of the various treatments. The importance of the prevention of disease has been emphasized, but the specific sources and channels of infection have not been stressed sufficiently.

Text-Book of Home Nursing. By Eveleen Harrison, Second Edition. Cloth, pp. 187, $1.10. The Macmillan Company, New York, 1918.

THIRD ANNUAL SESSION OF WEST VIRGINIA HOSPITAL ASSOCIATION

This Association Has Largest Official Representation of State Hospitals in the Union—Officers Elected for the Coming Year

The third annual convention of the West Virginia Hospital Association met in Charleston, West Virginia, December 30 and 31, and, upon adjourning, elected the following officers for the coming year: President, Dr. J. A. Guthrie, Guthrie Hospital, Huntington; first vice-president, Dr. Charles F. Hicks, Emergency Hospital No. 1, Welch; second vice-president, Dr. S. B. Lawson, Logan; third vice-president, Miss Noel, Princeton; secretary-treasurer, Miss Knight, superintendent Chesapeake and Ohio Hospital, Huntington.

The executive committee consists of Dr. J. A. Guthrie, Huntington; Dr. W. A. McMillan, Charleston; Dr. C. A. Wingerter, Wheeling, and Dr. P. O. Clark, Wheeling. Dr. H. H. Farley, Logan, is chairman of the membership and auditing committee, and the legislative committee is made up of Dr. George A. MacQueen, Charleston; Dr. W. A. McMillan, Charleston, and W. C. Lyon, superintendent of the Sheltering Arms Hospital, Hansford.

The time and place for the next annual meeting of the association is to be determined by the executive committee.

Before adjourning the association accepted the invitation of Dr. H. J. Moss, superintendent of the Hebrew Hospital, Baltimore, to join with Delaware, Maryland, Virginia, and the District of Columbia in the formation of an interstate association.

The association has an official representation of forty-three of the fifty-two hospitals in the state, which is the largest percentage of any state in the United States.

Establishment of a Station for Heliotherapy in the Dini Villa, Naples

The magnificent Dini Villa on the famous Posilipo hill at Naples has been requisitioned by the state for the establishment of a hospital for abandoned children who need special treatment. These wandering children have become very numerous during this terrible war. The institution bears the name "For the Children of Italy." The hospital has room for 100 patients, and the state has furnished ample means for carrying on the work.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

KEEPING UP THE FIGHT

Detailed Account of the Curative, Educational and Repressive Measures Which the United States Public Health Service Has Taken Against Venereal Disease

By C. C. PIERCE, M.D., Assistant Surgeon-General United States Public Health Service

Based on the authority of the Chamberlain-Kahn bill, described in the main section of this magazine, page 95, the United States Public Health Service has developed an extensive program of attack upon venereal disease.

Immediately following the declaration of war, the task of sanitating the area surrounding the military camps was put upon the Public Health Service. It was soon evident that the most important problem was to protect the military forces from venereal disease. To that end clinics were established by the service in cooperation with the Red Cross.

The patients treated at these clinics may be classed as voluntary and involuntary. In addition to those who came of their own volition, in response to advertisements, information obtained from friends, and other sources, numbers were brought to the clinic by the local and military police and the law enforcement division of the Commission on Training Camp Activities. The systematic examination of food handlers, barbers, manicurists, etc., was a prolific source of clinical material.

The provision of suitable quarters for infected persons detained for treatment was one of the greatest difficulties the service had to meet, and although there were general hospitals in nearly every one of the zones, these patients were herded in barns, almshouses and jails, where the lack of facilities, proper food, adequate nursing, etc., not only made the treatment of the cases extremely difficult and unpleasant, but had a decidedly degrading effect upon the patients.

Wherever possible, detention hospitals were improvised by the service with the aid of the Red Cross or local agencies. Primitive as these were, these detention hospitals have definitely proved what all public health men and women have long known but have never had the opportunity to demonstrate, that venereal diseases can be cured in a very much shorter time if the proper hospital treatment is given them.

There is no doubt but that the isolation of carriers limited the spread of venereal disease among the soldiers.

A system of follow-up and social service was carried on from the clinics and the detention hospitals with very good results. This work was very much handicapped, however, by lack of trained personnel. Hospital training schools for nurses have as persistently neglected to train their nurses with regard to the social aspects of venereal disease as the hospitals have neglected to extend treatment to the diseases themselves.

In addition to the "United States Government Clinics," as the clinics in the zones were called, there were established throughout the country many clinics. Some were new, some old genito-urinary and dermatological clinics attached to hospital dispensaries or medical schools which were brought up to date. Others were city dispensaries or out-patient services of state boards of health. Various arrangements were made depending upon local conditions and local resources. For the most part these projects were financed by the Chamberlain-Kahn Fund.

The educational work as carried on by the division has been enormous and gratifying. The following, an excerpt from a report of the division to the surgeon-general gives an idea of the kind and extent of work done:

Educational Activities.—The work of preparing materials, establishing contacts, and developing methods in educational work has been almost finished during the fiscal month. The following pamphlets have been published in addition to those issued previously: (3) "Fit to Fight"; (4) "Keep Them Ft"; (6) "Man Power"; (11) "Venereal Disease a Public Health Problem for Civilian Communities"; (23) "When They Come Home"; (24) "War on Venereal Disease to Continue"; (25) "The Appeal to Advertising Media"; (26) "Shall We Finish the Fight?"; (27) "Venereal Disease and the War." Two exhibits, one for the general public and one for young men and boys, are almost ready for the printer. Orders have been placed for 125,000 venereal disease placards, most of which are to be used in railroad stations and coaches.

Suppression of Venereal Disease Nostrums.—Letters have been mailed to forty-eight thousand five hundred drug stores requesting them to stop selling venereal disease nostrums. (Since November 15, about thirteen thousand pledge cards promising their cooperation have been received from druggists, signed.) Letters have also been sent to twenty-five thousand newspapers and other publications, asking them to cooperate by refusing the advertisements of quack doctors and sex nostrums.

Health Campaign Among High Schools.—Forty state secretaries of the Y. M. C. A. have definitely agreed to furnish their best men for systematic work in reaching the high schools in their various states with a health exhibit for boys in which facts of venereal disease and sex hygiene are incidentally referred to. This will be done under the supervision of the various state boards of health.

Library Cooperation.—Educational material has been mailed to sixty-five hundred libraries, and at the end of the fiscal month replies were coming in at a very encouraging rate. These libraries indicate a live interest in the problem, and a desire to cooperate in providing the best books for parents.

Health Sunday.—In conference with representatives of the national organizations of the Protestant and Catholic churches, it has been decided to hold a Health Sunday on January 19, 1919. All ministers of the United States will be asked to enlist the support of their congregations in the fight being carried on against venereal diseases. Material is being prepared for them now.

Conferences of Educators.—During the fiscal month the following conferences for educators have been definitely scheduled: at the University of Pennsylvania, November 22-23; at Yale University, December 6-7; at Newark, N. J., December 13-14.

Industrial Educational Work.—One officer of the Division of Venereal Diseases has spent full time during the month in the office of the Commission on Training Camp Activities in New York City, familiarizing himself with educational work among industries, and in arranging details for the transfer of the work to the Public Health Service.

Educational Work Among Draftees.—During the month a corps of nine special field men were sent into various states to give general direction to lecture work among drafted men, and to the distribution of a pamphlet, "Come Clean," prepared especially for these men. Unfortunately,

the influenza epidemic was at its height in most parts of the country at just the time when this lecture was to begin, and the results were greatly interfered with thereby. Pamphlets were distributed by the state adjutant generals to local draft boards as follows:

Arizona	10,574	Michigan	90,223	South Dakota	15,649
Arkansas	38,714	Minnesota	57,259	Tennessee	51,522
Florida	22,212	Montana	20,157	Texas	105,518
Idaho	11,634	Nevada	3,216	Utah	10,645
Illinois	170,426	New Mexico	8,665	Virginia	50,211
Indiana	70,170	New York	271,409	Wyoming	6,861
Louisiana	41,826	Oklahoma	47,629		

Reports from other states which have actually distributed the circulars will be received later.

On October 26, the following states had definitely organized lecture work for the men of the new draft: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Indiana, Massachusetts, Michigan, Montana, Nebraska, Nevada, New Jersey, New York, Ohio, Oregon, Rhode Island, Texas, Utah, Virginia, Washington, West Virginia, Wyoming.

Reports of attendance will follow.

Lectures Before Conventions and Various Organizations.—Eighteen such lectures were arranged.

Publicity Work.—Arrangements have been completed for the publication of a half-page and quarter-page article through boiler-plate service. Weekly news service sheets have been arranged for, which will be printed and distributed beginning November 20. Multigraph releases are also being frequently sent to a list of two thousand newspapers. Receipt of clippings indicates that this material is being used.

BOOKS RECEIVED FOR REVIEW

Personal Hygiene and Home Nursing. A Practical Text for Girls and Women for Home and School Use. By Louisa C. Lippitt, R.N., Assistant Professor of Correction Exercises, University of Wisconsin. Illustrated. Cloth, pp. 256, $1.28. World Book Company, Yonkers-on-Hudson, New York, 1918.

Accidents and Emergencies, a Manual of the Treatment of Surgical and Medical Emergencies in the Absence of a Physician. By Charles W. Dulles, M.D., Fellow of the College of Surgeons of Philadelphia and of the Academy of Surgery, and Consulting Surgeon to the Rush Hospital. Cloth, pp. 153, 45 illustrations, $1. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Abridged Textbook on First Aid, General Edition. By Colonel Charles Lynch, Medical Corps, United States Army. Paper, pp. 202, 41 illustrations, 35 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Abridged Textbook on First Aid, Women's Edition. By Colonel Charles Lynch, Medical Corps, United States Army. Paper, pp. 190, 92 illustrations, 35 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

American Red Cross Textbook on Home Hygiene and Care of the Sick. By Jane A. Delano, R.N., Chairman of the National Committee, Red Cross Nursing Service; Director Department of Nursing, American Red Cross; and late superintendent of the Nurse Corps, U.S.A. Paper, pp. 318, 34 illustrations, 60 cents. P. Blakiston's Son & Co., Philadelphia, 1918.

Information for the Tuberculous. By F. W. Wittich, A.M., M.D., Instructor in Medicine and Physician in Charge of Tuberculosis Dispensary in the University of Minnesota Medical School; Visiting Physician to University Hospital, Minneapolis. Cloth, pp. 144, $1. C. V. Mosby Co., St. Louis, 1918.

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The maxims of wisdom are the pieces of glass in a kaleidoscope; they remain forever unchanged and in the same case; and every age shakes them into a new combination of colors.—Bulwer-Lytton.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital, Wilmington, Del.

AN EXPERIMENT IN FAIR DEALING

How the Delaware Hospital and Neighboring Employers Cooperate to Secure the Best Treatment for Injured Employees Where the Law Is Inadequate

By a Local Correspondent of THE MODERN HOSPITAL

A very definite stand has been taken by the Delaware Hospital in regard to the payment of charges in cases of industrial injuries. The workingmen's compensation law of Delaware allows a maximum of twenty-five dollars for the medical, nursing, and hospital care of employees injured in the course of their employment. The responsibility for this payment rests with the employer who to protect himself insures in most cases with an insurance company which carries his risk. The insurance companies naturally take advantage of the law and no matter how long the patient may be in the hospital, nor how serious an operation may have been performed upon him, they pay no more than twenty-five dollars in any case.

This is manifestly not fair to the hospital for the charge of twenty-five dollars by no means covers the cost of treating the majority of accident cases. When the cost of caring for a patient is not paid to the hospital, someone is the recipient of charity whether it be the employer, the employee, or the insurance company. One object of the workingmen's compensation act is to relieve the employee of the responsibility of shouldering the cost of paying for medical attention for injuries incurred during his hours of work, the theory of the law being that the industry should bear the burden of this expense. If the industry is adequately insured the insurance company should assume the responsibility. But that is beside the point—what interests the hospital is that it is not adequately provided for by the law.

As a matter of fact Delaware manufacturers, construction companies, and transportation corporations have on the whole acted very fairly and honorably in the matter by assuming the whole responsibility for the hospital charges of their injured employees sent to the hospital, and have paid the balance over what the insurance companies have allowed upon the hospital charges. These charges have been at the rate of two dollars a day for ward cases with an additional charge of five dollars for the use of the operating room. Additional charges are made for x-ray examinations, the hospital receiving 50 percent of these charges and the roentgenologist the other 50 percent.

This arrangement is based upon the principle that the hospital is not a party to any agreement between the employer and employee or between the employer and an insurance company. It is cooperating directly with the em-

ployer who sends his injured employee to the hospital. When the employer sends the injured person to the hospital for treatment and selects the Delaware Hospital to render the service, he expects to pay the full charge for the treatment on a cost basis. The hospital does not earn a profit.

Table 1 shows what the Delaware Hospital received for the treatment of accident cases from industrial concerns for the first six months of 1918, and what it might have received if these concerns had not assumed full responsibility for the payment of their injured employees whom they sent to the hospital to be cared for. For the names of the concerns numbers have been substituted:

TABLE 1. CHARGES ON INDUSTRIAL CASES COLLECTED DURING FIRST SIX MONTHS OF 1918 COMPARED TO EMPLOYER'S LIABILITY TO WORKMEN.

Concern	Days Service	Charges Collected	Liability Under Law	Difference
1	1,211	$2,672.85	$ 704.60	$1,968.25
2	366	824.20	297.50	526.70
3	526	1,037.00	211.00	826.00
4	56	91.75	67.00	24.75
5	259	673.60	125.00	548.60
6	33	77.50	51.50	26.00
7	126	252.00	158.00	94.00
8	77	312.55	62.00	250.55
9	8	34.40	34.40	.....
10	222	444.00	114.00	330.00
11	9	18.00	18.00	.....
12	3	6.00	6.00	.....
13	178	307.50	25.00	282.50
14	1	2.00	2.00	.....
15	10	20.00	20.00	.....
16	3	6.00	6.00	.....
17	14	28.00	25.00	3.00
18	25	82.00	25.00	57.00
19	13	33.80	25.00	8.80
20	10	26.00	25.00	1.00
21	37	74.00	25.00	49.00
Totals	3,187	$7,023.15	$2,027.00	$4,996.15
Percentages		100%	28.9%	71.1%

Table 1 shows that only 28.9 percent of the charges collected in the first six months of 1918 for the treatment of employees injured in the course of their duty was covered by the workingmen's compensation act of the state of Delaware. The balance, or 71.1 percent, was paid out of the pockets of manufacturers who did not wish to shirk their responsibility in the matter but desired to cooperate with the hospital in seeing that the best possible service was rendered their people. Some of these cases, however, were charged for at more than the ward rate since the patients were treated as "semi-private" patients. Thus, in a number of cases, the hospital charges exceeded the maximum amount allowed by the workingmen's compensation law even before the fourteen days' limit for treatment had expired. For example, from concern No. 20, only one man was sent to the hospital. He was in the hospital for ten days, and the total charges amounted to twenty-six dollars. Actually, instead of providing for fourteen days' medical service, as the compensation law was designed to do, less than ten days' hospital services were provided for by the law with nothing in addition to pay a surgeon's fee.

Table 2 presents the service rendered by the hospital from a slightly different point of view. It shows that almost half of the cases of the injured employees sent to the hospital by industrial concerns remain in the hospital for more than fourteen days, the limit for which the workingmen's compensation law provides for payment. It also shows that the employer is not liable to the employee for the payment of 62 percent of the service rendered by the hospital, to say nothing of the payment of surgeon's fees, which amount to considerable in this type of accident or injury.

If the law was designed to protect the workingman from the need of receiving charity, it is evident that it would fall far short of succeeding if it were not for the fair-mindedness of most employers in and near Wilmington. Of course the insurance companies profit from this condition more than anyone else concerned.

TABLE 2. LIABILITY IN CASES AND DAYS OF SERVICE OF EMPLOYER'S UNDER WORKINGMEN'S COMPENSATION ACT OF DELAWARE.

Concern.	Industrial Cases—Total cases.	Industrial Cases—In hospital 14 days or less.	Industrial Cases—In hospital more than 14 days.	Days of Service—Employer liable for under law.	Days of Service—Employer not liable for under law.
1	35	14	21	519	692
2	23	16	7	160	206
3	12	5	7	116	410
4	6	5	1	30	26
5	5	1	4	66	193
6	5	4	1	26	7
7	8	5	3	84	42
8	4	3	1	33	44
9	2	2	0	8	0
10	4	1	3	63	159
11	1	1	0	9	0
12	1	1	0	3	0
13	1	0	1	14	164
14	1	1	0	1	0
15	1	1	0	10	0
16	1	1	0	3	0
17	1	1	0	14	0
18	1	0	1	14	11
19	1	1	0	13	0
20	1	1	0	10	0
21	1	0	1	14	23
Totals	115	63	52	1,210	1,977
Percentages	100%	54.8%	45.2%	38.0%	62.0%

As yet, however, the surgeons have received no fee for the care of these patients except in such instances as special arrangements have been made by individual surgeons with individual companies. In such cases the patient becomes a private or semi-private patient, and the charge is made accordingly.

This arrangement does not seem fair to the surgeon, and therefore the following resolutions were passed by the board of trustees of the Delaware Hospital last sum-

Effective January 1, 1919

SCHEDULE OF CHARGES

ADOPTED BY THE DELAWARE HOSPITAL
FOR THE TREATMENT OF INDUSTRIAL ACCIDENT CASES

Bed, board and general nursing, per day in ward $2.00
Operating room fee $5.00
X-Ray examinations (see schedule on page 4)
Laboratory examinations (see schedule on page 4).

SURGEON'S FEES

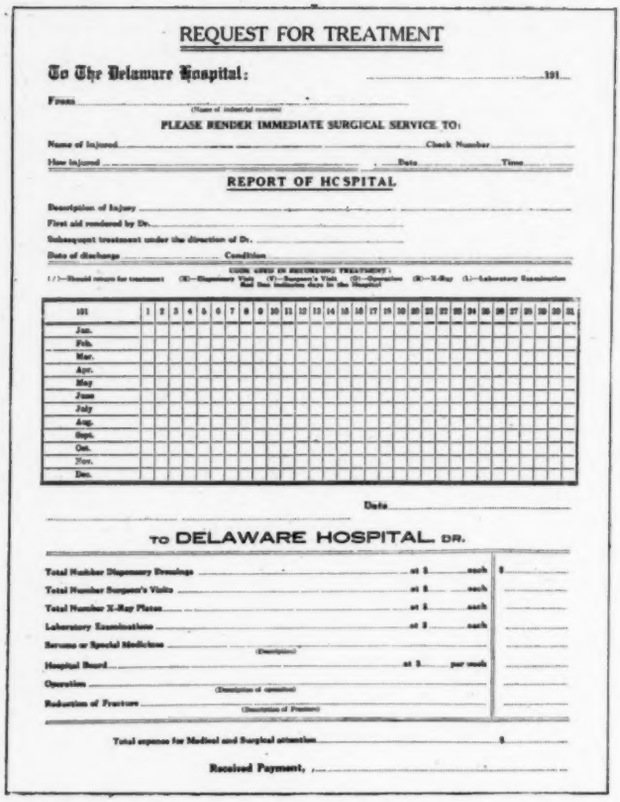
IN ADDITION TO THE HOSPITAL CHARGES

SPECIFIC INJURIES

	A	B	C	D
	Flat rate, including first aid, operation and full treatment	Operation only.	Total limit for full subsequent treatment.	Separate charges for all subsequent treatment, not to exceed total in Column "C."
FRACTURES:—				
Upper arm	20.00	15.00	5.00	1.00
Forearm—one bone (shaft)	15.00	10.00	5.00	1.00
" both bones (shaft)	20.00	10.00	10.00	1.00
" Colles'	25.00	15.00	10.00	1.00
Femur	30.00	20.00	10.00	1.00
Lower leg—one bone	20.00	10.00	10.00	1.00
" " —both bones	25.00	15.00	10.00	1.00
Jaw	20.00	10.00	10.00	1.00
Ribs—one or more	10.00	5.00	5.00	1.00
Patella	30.00	20.00	10.00	1.00
Pubic bone	15.00	2.00	13.00	1.00
Acetabulum	50.00	30.00	20.00	1.00
Metatarsal or metacarpal	5.00	2.00	3.00	1.00
Fingers—one or more	5.00	2.00	3.00	1.00
Toes—one or more	10.00	5.00	5.00	1.00
Coccyx	15.00	2.00	13.00	1.00
Sacrum	15.00	2.00	13.00	1.00
Sternum	10.00	5.00	5.00	1.00
Spine	30.00	10.00	20.00	1.00
Lachrymal bone	10.00	5.00	5.00	1.00
Malar bone	10.00	5.00	5.00	1.00
Scapula	20.00	10.00	10.00	1.00
Clavicle	15.00	5.00	10.00	1.00
Nasal bones	10.00	5.00	5.00	1.00
Compound fracture	25% extra.			
Operation for wiring of bones or plating	50% extra.			
SPRAINS:				
Shoulder	$5.00	$2.00	$3.00	$1.00
Elbow	5.00	2.00	3.00	1.00
Wrist	5.00	2.00	3.00	1.00
Hip	5.00	2.00	3.00	1.00
Knee	5.00	2.00	3.00	1.00
Ankle	5.00	2.00	3.00	1.00
All other joints	3.00	1.00	2.00	1.00

pg. 1

Fig. 1. First page of Delaware Hospital schedule of charges based on the schedule adopted by the hospitals of New York City.



REQUEST FOR TREATMENT

To The Delaware Hospital: ..... 191...

From .....
(Name of industrial concern)

PLEASE RENDER IMMEDIATE SURGICAL SERVICE TO:

Name of Injured ..... Check Number .....

How Injured ..... Date ..... Time .....

REPORT OF HOSPITAL

Description of Injury .....

First aid rendered by Dr. .....

Subsequent treatment under the direction of Dr. .....

Date of discharge ..... Condition .....

CODE USED IN RECORDING TREATMENT:

( )—Should return for treatment (E)—Dispensary Visit (V)—Surgeon's Visit (O)—Operation (X)—X-Ray (L)—Laboratory Examination
Red lines indicate days in the Hospital

191	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan.																															
Feb.																															
Mar.																															
Apr.																															
May																															
June																															
July																															
Aug.																															
Sept.																															
Oct.																															
Nov.																															
Dec.																															

Date .....

TO DELAWARE HOSPITAL, DR.

Total Number Dispensary Dressings	at $ ..... each	$ .....
Total Number Surgeon's Visits	at $ ..... each	.....
Total Number X-Ray Plates	at $ ..... each	.....
Laboratory Examinations	at $ ..... each	.....
Serums or Special Medicines ..... (Description)		.....
Hospital Board	at $ ..... per week	.....
Operation ..... (Description of operation)		.....
Reduction of Fracture ..... (Description of Fracture)		.....
Total expense for Medical and Surgical attention		$ .....

Received Payment, ...

Fig. 2. "Request for Treatment" used by the Delaware Hospital. It is kept upon the chart rack of the patient and on it are entered all the items for which charges may be made.

mer in order not only to protect the hospital but to protect the surgeon as well:

RESOLVED, that the Delaware Hospital establish a fixed rate of charges for surgeon dressings and operations to be applied in case of industrial accidents, and that the fees for surgeon services be collected by the hospital and paid to the surgeon rendering the service.

That the surgeons attending industrial cases must individually agree not to collect such charges directly from the employer or insurance company except in such cases as the surgeon may receive a regular salary from the employer or insurance company. The surgeons shall also agree not to hold the hospital liable for fees it is unable to collect, and shall consider all payments made by employers or insurance companies in payment of service rendered as applying to the claims of the hospital rather than to the surgeon until the claims of the hospital have been covered. It is further

RESOLVED, that the other hospitals in Wilmington shall be notified of this action of the Delaware Hospital and that their cooperation shall be requested.

As a result of this action a schedule of charges has just been adopted and went into effect on January 1 of this year. This schedule is based upon the schedule adopted by the hospitals in New York City. While the charges are extremely reasonable, they were gladly accepted by the surgeons as being better than receiving nothing at all for attending to cases which should be fully paid for. Moreover, when a resident treats the patient, as he does in cases of minor injuries, the fee accrues to the hospital. Figure 1 shows the first sheet of this schedule, which will be sent to any hospital interested in receiving a copy.

SERVICE CARD
DELAWARE HOSPITAL

Date .....

Your employe ..... Check No. .....

employed as ..... has reported to the Delaware Hospital for treatment.

He is suffering from .....

We have given him a card indicating that he should return for treatment at ..... on .....

In order that the Delaware Hospital may render a service that is satisfactory to you, we ask your cooperation to the extent of insisting that your employe return for treatment at the time indicated. We will report to you when the patient has been discharged

If the man who applies for treatment is *not* employed by your company or was not injured while in your employment, kindly advise at once in order that we may not carry an erroneous charge for treatment against your company.

Yours for service,
BARROW B. LYONS,
Superintendent, Delaware Hospital.

Fig. 3. "Service Card." When a patient does not bring a request for treatment, this form is sent to his concern to procure a written authorization for treating him.

In order to avoid confusion and misunderstandings regarding the responsibility for paying for industrial cases, those plants which send in the greatest number of cases to the hospital have been furnished with blanks entitled "Request for Treatment." (Fig. 2.) These indicate the name of the corporation to which the bill is to be sent. They are placed upon the chart rack of the patient if he is admitted into a ward and a record of days of treatment, surgeon's visits, and other items for which charges may be made are recorded daily upon these forms. When the patient is discharged the charges are marked upon the same forms and it is sent to the concern sending in the patient. By sending the original authorization for treatment it is expected that bills will be paid promptly and without the correspondence back and forth which now very frequently takes place. The system has not been in operation long enough as yet to base any definite conclusions upon the experience obtained.

When the patient does not bring one of the requests for treatment, a form is sent to the concern sending in the case in order that written authorization for treating the patient at the expense of the company be obtained (Fig. 3).

The whole system was designed for the purpose of rendering an attractive service to the industrial concerns of the neighborhood, for this type of "business," it is believed, will become more and more important to the hospital as employers realize the value of caring for the health of their employees.

Another way in which the Delaware Hospital is attempting to render an attractive service is in the care of its dispensary patients. When laborers were sent to the dispensary for the treatment of slight injuries, they sometimes did not report back for redressings when they should. Infections not infrequently resulted for which the hospital was blamed; from the employer's point of view this was also disadvantageous. To cooperate with the concerns sending in their employees for treatment, a card was devised to indicate to the concern the date and hour upon which their employee should report back to the hospital for a redressing. The card is usually handed to the foreman in charge of the employee's department with instructions to see that he reports back to the hospital when he should.

These are simply suggestions as to how one hospital is attempting to render a better service to the industrial concerns in its neighborhood, knowing that it pays to have good friends and to render good service. The beneficial results are not always immediately reflected, but they are sure to bear fruit in the end.

* * * *

John B. Andrews, secretary of the American Association for Labor Legislation, recently said, "It is our duty during the war, and even because of the war, to take certain steps in advance for the protection of the national health." This statement might well be recast to read, "It is our duty during the reconstruction following the war, and especially because of the reconstruction, to take all advance steps for the protection and upbuilding of the national health."

It matters not how much wood I burn, but what I do when I get warm.—Thoreau.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

CONSERVATION IN THE PLANNING OF DIETS*

Nutrition Experiments Reveal Three Sources From Which Absolute Essentials for Adequate and Satisfactory Diet Are Obtained—Conservation Not Always an Economy

By E. V. McCOLLUM, M.D., School of Public Health and Hygiene, Johns Hopkins Hospital, Baltimore, Md.

I want to point out to you the application of the recent results of nutrition investigations, both with respect to experiments on animals and observations upon groups of human beings, and to correlate the experiences so that you may see the best method of planning an adequate diet. I want to point out furthermore that conservation does not necessarily mean saving in all cases. There are certain foodstuffs upon which we should not attempt to economize.

The first generalization that I want to make is this: That, in the course of the conduct of about thirty-one hundred feeding experiments with animals which we have made during the last eleven years, we have found that we can not make a satisfactory diet out of seeds and seed products, such as the cereal grains and products derived from them, the legume seeds, peas and beans, together with tubers, such as the potato, and edible roots, such as the sweet potato, turnip, radish and beet, used in connection with meat. Animals may have all these natural foods in the diet and still fall far below normal in their nutrition. For example although as much as 10 percent of the dry matter of the diet may come from round steak, ham or other muscle tissue of animals such mixtures as contain whole wheat, rolled oats, whole ground corn kernel, rye, or barley, when used with potatoes and any of the edible roots will, in all cases, fail to induce normal growth in the young or prevent the early aging of the adult. The reasons for this are threefold: (1) all such mixtures of foodstuffs will be deficient in three mineral elements, calcium, sodium, and chlorine. Only one of these is important in human nutrition because we always add sodium chloride or common table salt, so that, in human nutrition, the only serious danger with such mixtures on the mineral side is the shortage of calcium; (2) all such mixtures, however, will be deficient in a still unidentified dietary essential which is found abundantly only in butter fats, in egg yolk fats, and in fats derived from the interior of the cells of the glandular organs of animals, such as the fats which come from the inside of the liver cells, the kidney cells, the pancreas, or other glandular organs; (3) such food mixtures as are derived from the mixtures I have just been talking about, minus meats, will have proteins of relatively poor quality. There is a very great difference in the biological value of the proteins derived from different sources. The results of animal experimentation warrant the general statement that proteins of milk, eggs, and meats, are worth approximately six times as much as an equivalent amount of the proteins from either peas or beans, both of which are of surprisingly low value when fed as the sole source of protein.

Any mixture, then, of seed, tubers, and edible roots will be deficient in three respects: On the mineral side, with respect to the unknown dietary essential to which we have given the name "fat-soluble A," which is abundant only in certain fats and in the leaves of plants. All such mixtures not containing meat will have a poor quality of protein, while those containing meat will be deficient in regard to their mineral contents and their contents of the unidentified dietary essential which I just mentioned.

There are but two ways in which we can make up satisfactory diets. One of these is by the use of seeds and seed products, together with edible roots and tubers, either with or without meat, and fairly liberal amounts of milk or eggs. The other is through the use of seeds, tubers, edible roots, with or without meats, together with very liberal amounts of the leafy portions of plants. By the leafy foods I mean such things as spinach, lettuce, cabbage, celery tops and turnip tops, Swiss chard, and Brussels sprouts—in fact, the leafy portion of plants acceptable as human food.

Only a surprisingly small number of plants have leaves which are acceptable as human food. In this country we have gone almost to the extreme of using no leaves in our diet. We eat a little of certain leaves, but the high water content of them is such that the total amount of dry matter which we eat in this form is surprisingly small. Certain races, particularly the Orientals, the Chinese, the Japanese, and peoples of the tropics, eat very liberally of the leafy portion of the plant, and I venture the statement that it is the liberal consumption of leaves which has preserved them from extinction. They do not have a supply of milk, and their supply of eggs is small; and we have been unable, in many experiments on animals, to make up diets which will preserve the species through any great number of generations—in fact, even through three generations—on diets not containing milk, eggs, or the leafy portions of the plants.

Now the seed, the tuber and the edible roots are all in the same class in this respect, namely, that they are all the storage organs of plants and are composed of reserve food materials almost exclusively. There is in each of them but very little actual living protoplasm; they are not cell-rich structures. The few cells which were present in the immature seed, in the growing edible root, and in the tuber become engorged as the time of maturity approaches with reserve protein, reserve starches and sugars, and, in some cases, fats and oils, together with certain mineral salts. All the inner portion of the potato, the edible roots, and all the endosperm of seeds, are approximately the equivalent, in dietary properties, of a mixture of purified protein, purified starches, purified sugars and purified mineral salts. Irrespective of what chemical analysis may show them to contain in the way of protein or of digestible nutrients, we are unable to maintain long the life of an animal with such mixtures or to secure any growth whatever in the young. If we classify them on the basis of the character of their diet, there are two large groups of people in the world. One of these is represented by the peoples of a large part of India, of China and Japan, of the Philippine Islands, and of the tropics generally. These peoples have never used milk; they have never de-

*Read before the First Annual Meeting of the American Dietetic Association, Atlantic City, N. J., Sept. 24-28, 1918.

veloped a dairy industry; and the consumption of eggs is small except among the well-to-do. They are, with few exceptions, undersized, poorly nourished, and have a short span of life. Their infant mortality is the highest of any peoples in the world, and they have a peculiar mental lethargy which has led them to go on, generation after generation, contentedly making use of the very simple mechanical inventions of their forefathers. They have never achieved, in the fields of science, literature, art, or invention, as have the other peoples of the world. The second group of people, classified on the basis of the character of their diet, is represented in normal times by the peoples of Europe, North America, and a few other places. These people have had the same type of food as have the peoples of the Orient and the tropics, but in addition they have had, from the dawn of history, a fairly abundant supply of milk and, particularly in the North, up to the time of the development of the poultry industry, long before they became the civilized and progressive nations which they are today, an abundant opportunity to secure wild birds' eggs. As a result, they were physically far superior to the people of the tropics.

So important is it to differentiate between the value of milk, eggs, and the leafy vegetables, on the one hand, and, on the other, the rest of the foodstuffs which we are liable to eat, namely, the products of cereal grains, the legume seeds, the tubers, the edible roots, and meats, that, on the first of March, in speaking to the American Association of Home Economics, I coined the term "protective foods" to designate milk, eggs and the leafy vegetables. These are protective foods because they are so constituted with respect to the character of their protein and their content of certain mineral elements as to meet the physiological requirements of an animal; and they are so rich in what we term the fat-soluble A, an unidentified dietary essential, that they supplement the three kinds of deficiencies which will be present in all mixtures of whatever else we are liable to eat. Now we can correlate what I have just said with human experience in this country at the present time. I have discussed this matter with numerous men now who are in a position to criticize my statement if it is deserving of criticism, and they agree with me that wherever one finds large groups of people in the industrial class who are living in congested districts in large cities and who go to the store and purchase their food supply, one will find a high mortality from tuberculosis in nearly, if not all, cases. In the selection of their foods this class is, without exception, making the serious mistake of trying to live on wheat flour, degerminated corn meal, rolled oats, polished rice, potatoes, and to some extent, sweet potatoes and the meats. There are many of the poor wage-earning classes who use meats liberally. They do not, as a rule, purchase milk or eggs; nor do they eat liberally of the leafy portion of the plant except, perhaps, during a short period of the fall when cabbage is cheap and abundant.

In the city of Baltimore we have about six hundred thousand population, one-sixth of whom are negroes, and this one-sixth of our population furnishes and has furnished for years about 40 percent of our total annual death rate from tuberculosis. Our death rate from this disease is very high, and our city is one of the three most unfortunate in this respect in the United States. Through the visiting nurses of the city health department in Baltimore, I have learned pretty definitely what both the negroes of Baltimore and the white people of the same economic basis are trying to live on. They are trying to live on this list of foods which I just enumerated—bolted wheat flour, degerminated corn meal, polished rice, rolled oats, potatoes, sweet potatoes and meats. During a portion of the year they use cabbage, but they do not use milk, eggs, or the leafy vegetables in anything approximating adequate amounts. Now the prevalence of tuberculosis among them is, I believe, to be correlated with the character of their diet.

We have on numerous occasions tried experiments which illuminate this subject. Animals which have grown up on a highly satisfactory diet and have lived about one-fourth their normal span of life have been put upon food mixtures derived from seeds, tubers and edible roots, with or without meats. We have made about seventy-five or eighty such experiments now, using as many as six or seven perfectly wholesome seeds, and, in all cases using perfectly wholesome natural foods, and have confined our animals to diets of this class. Instead of living the normal span of life and maintaining the characteristics of vitality and the appearance of good nutrition and strength during the greater portion of their life, they all are very old-looking and are ready to die by the time they have reached about two-thirds of the normal span of life. They will age at least twice as rapidly from the end of the first quarter of life on diets derived from foods which are functionally storage organs as they would if they were on a diet in which there was a liberal amount of one or more of what I term the "protective foods," milk, eggs and the leafy vegetables.

This is a very important matter, because many institutions are attempting to keep their inmates week after week and month after month on a diet derived largely from the endosperm of seeds, together with the two important legume seeds, peas and beans, using them in connection with potatoes, more or less meat, and a minimum of milk, eggs, and the leafy vegetables. They are not difficult to secure, but, as they are the more expensive foodstuffs, the tendency is to reduce their consumption to the minimum. The low standard of health in many such institutions may, I venture to say, be directly the result of long adherence to a diet lacking in the three protective foods. In the city of Baltimore we have no less than seven institutions for the care of homeless children. One of these, last February, had not a death in seven years. Still another had had no death in 1917. At the other extreme stood one institution in which 23 percent of the inmates, numbering between two and three hundred, had died in the past year. Still another had lost 20 percent of its inmates in a year. Upon investigating the diet of the children in these two institutions, I found the purchases of the three protective foods almost nil. In one case, a home with about two hundred and thirty children, the milk purchases amounted to only sixteen quarts per day, and this appeared to be chiefly consumed by the attendants. Almost all these children had tuberculosis. Tuberculosis, as is well known, is a transmissible disease, caused by a micro-organism. The white people of Baltimore breathe the same air, with the same dust, every day as do the negroes in that group which suffers seriously from this disease; but the better-nourished walk immune through the same streets as are used by those who become victims of tuberculosis.

There is another disease which, so far as I can tell, is promoted in its seriousness by faulty diet in somewhat the same degree as is tuberculosis. I refer to pellagra. I have on a number of occasions had the opportunity to discuss, with Dr. Joseph Goldberger, of the Public Health Service of Washington, his own investigations in relation to pellagra. Dr. Goldberger has made a very careful study of the etiology of this disease, and he is in full accord with my statement that the people who are suffering

from this disease throughout the south are attempting to live too largely on products derived from the endosperm of seeds. The cereal grains, the legume seeds, together with tubers, molasses, and more or less meat, principally pork, make up almost their entire food supply. They do not use milk, eggs, nor the leafy vegetables liberally. At the annual meeting of the American Medical Association in Chicago in June Dr. Goldberger presented a most remarkable study of a correlation between the use of milk and the prevalence of pellagra in the population of Spartanburg County, S. C. He has found—and his findings correlate satisfactorily with the findings of investigators in animal nutrition—that people who use milk liberally do not have pellagra. The same would be true, I venture to state, if they used liberal amounts of eggs. It is, however, not possible to secure the best results in human nutrition by making the leafy portion of the plant the sole protective food. We are not anatomically suited to the consumption of large amounts of leafy food. That is the reason why the inhabitants of the far East and of the tropics have not succeeded better with their diet in which the leaf is almost their sole protective food; they can not eat enough of it. They can partially correct the faults in whatever else they may eat by the consumption of very liberal amounts of leaves, but they can never attain the optimum of nutrition on such a diet. I have inquired of those having experience in these countries, physicians, missionaries and foreign students, and all agree that the peoples of the far East and of the tropics use surprisingly large amounts of leafy foods as compared with what we use in this country.

Dr. Goldberger has caused the disappearance of pellagra from several institutions where he has gained control of the diet, merely by the introduction into the diet of liberal amounts of what I term the protective foods. In his early writings there was some error. A few years ago, Dr. Goldberger believed that the legume seeds, particularly beans, were highly protective against pellagra. He has now abandoned that view. The legume seeds have no peculiar dietary properties; they are seeds, the storage organs of the plant, and they have only the dietary properties of seeds in general.

Pellagra, I believe, has been correctly judged by the Thompson-McFadden Commission and by Jobling and Peterson of Nashville, Tenn., to be a disease which is communicable. It is, in all probability, caused by a microorganism. The matter is not fully settled, but the probability that this is true is very great, and I venture to say that pellagra, like tuberculosis, is a disease of sufficiently low virulence that it does nct form a menace in any large group of people who are properly nourished. I may add that the efforts of the medical profession for several decades to discover under what conditions the tuberculous patient has the best possible chance of recovery have come essentially to the following principles: The patient is kept in cool, fresh, dust-free air. He is kept at rest and is fed a diet in which milk and eggs find a very prominent place. He is kept in the fresh air and at rest, because if he has a lesion in his lung, it is injurious to introduce dust and bacteria into that lesion, and, if he has a delicate scar tissue, exercise is apt to damage it. His fever is kept down by keeping him at rest, and his appetite is stimulated by keeping him in cold air. The one other thing which gives him the best chance for recovery is the taking of a diet regularly in which milk and eggs—and I should add, also, the leafy vegetables—are abundant. This diet raises his powers of resistance and promotes his recovery. The use of the leafy foods in the feeding of the tuberculous patient has not been appreciated. I feel confident that a much more liberal use of the leafy portion of the plant in tuberculosis sanatoriums would be followed by most excellent results.

At the present time there is a very serious situation in respect to the dairy industry, and I have made it my business in recent months to do what I can to correct this growing trouble. A year ago there was a sudden dropping off in the purchases of milk nearly everywhere in this country, but particularly east of the Mississippi River. The milk purchases in practically every large city east of the Mississippi fell off anywhere from 20 to 50 percent in the course of a year. This was due solely to an unavoidable rise in the cost of milk. Milk is, however, not a highly attractive nor a highly palatable food. Indeed, there are but two groups of foods that are highly acceptable to the human palate; one of these is the meats and the other, certain of the fruits. All other foodstuffs have a relatively low palatability; they are acceptable, and we take them regularly—more regularly as they are more nearly flavorless. Few of us will adhere day after day to eating the more highly flavored roots or tubers. Carrots and turnips are not acceptable at every meal, nor every day, as are potatoes, which are almost without flavor. The reason milk has not been purchased with greater regularity and with greater liberality is that it is looked upon as an expensive food, and one not particularly attractive. Meats are so attractive that even the wage-earning classes purchase meats in liberal amounts, irrespective of the fact that these are very expensive and are of much less value than milk is in correcting dietary faults in other things which they eat regularly. In general, meats are for them a poor investment, but it is the appetite which prompts their purchase, irrespective of the fact that the more appetizing cuts have doubled in price within the last year and a half. Purchases of milk fell off so greatly that last year there was a great surplus of dairy products, butter, dried and canned milks, and cheese, especially in the East. The public ceased to buy, and, as a result, the products quickly accumulated. The producers became greatly discouraged and despondent.

The situation of the producer can best be illustrated by the story which a gentleman near Des Moines, Iowa, who has been in the dairy business for thirty years told me. He said that thirty years ago he could purchase bran, one of the more important dairy foods, for $4.50 a ton in Des Moines. At that time milk sold for five cents a quart. On the day I visited Des Moines, in April, bran was $39.50 a ton, and milk twelve cents a quart. The cost of labor had, of course, risen in proportion to the cost of foods. There was no longer any money in the milk business. Every time the price rises the local press makes a great fight, ostensibly—and, in many cases, in good faith—to protect the purchasers against what it assumes to be an extortion, and this helps to destroy the dairy industry. It is a matter of the greatest moment that we continue the purchase of milk irrespective of the rise in cost. Cut on the meat purchases but never on the milk. Eggs, which are the only food we need to consider in comparison with milk, do not compete with milk on the basis of price for equal amounts of protein or energy. It costs approximately twice as much on the basis of protein or of energy, to get protective food in the form of eggs as in that of milk, and milk has somewhat greater protective qualities, in that it corrects a little better the dietary faults of seeds, tubers and edible roots than do eggs. Eggs, however, are superior to milk in palatability. They should be used in moderation for their appetizing quality, to vary the character of the diet, and for their

peculiar role as protective foods. I know of several hospitals in which the question of milk purchases is now a very serious thing. They are cutting down on milk because of want of funds, but I want to sound this note of warning—that there are but three kinds of food which can not be compared on a money basis, on the basis of protein content, or on that of energy values, with any other foods which we eat; and those three foods are milk, eggs, and the leafy vegetables. You can not compare the cost of one of these three foods with that of the cereal grains, the tubers, the edible roots, or meats. They have a different quality, a quality which is indispensable, and we must keep up the consumption of these foods, or our failure to do so will promptly be reflected in the standards of our public health and efficiency.

Abstract of Discussion

DR. MARSHALL: The North American Indian seems to be an exception. Does he take much milk?

DR. MCCOLLUM: The question is asked, how did the American Indian develop as he did, being largely a carnivorous man? The same question would, of course, apply even better to the Eskimo. The explanation is this: All the Indians in America were by no means carnivorous people. If you will examine volume 34 of the Bureau of American Ethnology, a volume by Dr. Hrdlicka on Physiological and Medical Observations on the North American Indian, you will find that the Indians were accustomed to eating very liberal amounts of the leafy foods. In part, the explanation of their success is this; what I said about meat applies to muscle tissue meats. These are the meats which we use almost exclusively and which form the only highly appetizing cuts. The glandular organs, such as the liver, kidney and sweetbread, have very different dietary properties from the muscle tissue; these are cellular organs and are highly actively functioning protoplasm. We have had a very considerable number of experiments with carnivorous diets and through inquiry of keepers of zoos, of famous hunters, and of those who have visited the far North, have arrived at the conclusion that the success of the strictly carnivorous animals, including man, rests largely on the order in which they select the portions of their prey. The carnivora, on killing an animal, first take blood. This is their first choice of the tissues, and they take it as long as it flows from the large veins. The next choice of the carnivorous animal is the glandular tissues. They open the abdomen and eat liver and kidneys as their second choice. Their third choice is the softer ends of the bones, which they eat at leisure. The last choice of the carnivorous animal is muscle tissue. Not long ago I was assured by a botanist who had recently visited the North, that this practice prevails among the Eskimo on the Arctic American coast. When they kill a reindeer, their first choice of dainties is blood, and they take it while it is warm and fresh. Their second choice is the glandular organs. They eat liberally of fats and of muscular tissue, but they get something from the glandular tissues that they would never get from the muscle tissue.

MISS WELLS, Brooklyn, N. Y.: I want to ask about the protective qualities of dried milk.

DR. MCCULLOM: I can discuss that only in relation to nutrition aside from the scurvy. There is too much argument and too warm a discussion among investigators on the question of scurvy to permit me to enter into that question here today. However, I will say this—that, with such species of animals as do not suffer from scurvy, we have not been able to demonstrate any depreciation in the dietary qualities of milk in the processes of drying, evaporating, or sterilizing. The deterioration in the case of canned milk, especially, lies apparently only in its less appetizing qualities. In some cases, especially in the test of sweetened evaporated milk, where the preservation is not due to sterilization but largely to the concentration of sugar, such milks may be in bad bacteriological condition. Dried milks are, as a rule, in excellent bacteriological condition, and I see no reason to condemn them. I do not, however, wish to recommend either dried or canned milks for the feeding of young infants. My advice in the feeding of young children is confined to this: Get the freshest, the cleanest, the best of milk for your children; take care of it after you get it, and feed it to them in clean bottles. If an infant develops anything, take him to the physician and let him tell you what to do. One can give no general, sweeping advice which would fit all cases, and it would be dangerous for me to attempt it:

MISS LULU GRAVES, Chairman: What about the effect of dehydration on green vegetables?

DR. MCCULLOM: In this case I must limit my reply in the same way I restricted it in the case of milk, namely, to what we know about the dietary properties of dried, leafy foods and what we have learned in experiments with those species of animals which do not suffer from scurvy. In all such cases, we find no demonstrable deterioration in the dietary qualities of the leafy foods in drying, either in the sun or in a current of warm air.

DR. MARSHALL: Are the protective qualities of the leafy foods lessened by cooking?

DR. MCCULLOM: If they are lessened by cooking, the deterioration is confined solely to their special role in the prevention of scurvy. I cannot discuss in detail the question of scurvy here today. It is too complex. The dried leaves, however, thoroughly cooked, even heated under pressure to the extent to which canned goods are usually heated in processing for sterilization, and fed to those species of animals which do not suffer from scurvy, seem to have undergone no deterioration which we can demonstrate by animal experimentation.

* * * *

NEWS NOTES OF DIETITIANS

Miss Eleanor Wells has given up her work as dietitian in Brooklyn Hospital, Brooklyn, N. Y., in order to organize a course of study for dietitians at Teachers College.

In addition to her work in Teachers College, Miss Wells is giving the course in dietetics to the nurses of St. Luke's Hospital, New York City.

The committee on membership of the American Dietetic Association will meet soon to take action on all applications now in their hands. All who wish to become members should send in applications at once to Miss E. M. Geraghty, New Haven Hospital, New Haven, Conn. Early enrollment assures your name getting on the mailing list.

Miss Ardelle Ferguson, who has been dietitian at the University Hospital, Augusta, Georgia, is returning to her home in Ohio. Miss Lydia Humphrey, formerly of Akron City Hospital, Akron, Ohio, succeeds Miss Ferguson at University Hospital.

Miss Irene Willson has accepted the position of dietitian at Akron City Hospital.

The Alimentary Ration in Hospitals on Land and on Hospital Ships

L. Sestini discusses this subject in the *Annali di medicina navale e coloniale* of Rome.

The author comes to the conclusion that the ordinary alimentary rations in Italian hospitals and on hospital ships fill the theoretical requirements of modern nutrition, but he finds that in the hospitals on land the ration is too small and the fats are not represented in sufficient quantity. In the Italian hospitals the wine ration was abolished in 1916 by ministerial decree and is only allowed on medical prescription. On hospital ships the patients still receive wine with their meals, but the author thinks that the wine ration could be abolished here, also, without any disadvantage.

Duplicate Requisitions for Repairs

A simple method of keeping track of the repair work being done by the hospital mechanics, is to require that all requisitions for repairs be sent in to the superintendent in duplicate, the carbon for each to be filed until the original is returned with the time spent in making that repair marked upon it.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

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Institutional Membership

PLEASE SEND IN YOUR APPLICATIONS

Since the publication of the list of fourteen applications for the institutional membership in the January number, applications from the following have been received:

The Anna Jaques Hospital.....Newburyport, Mass.
Franklin Square Hospital.....Baltimore
Knickerbocker Hospital.....New York
The Mercy Hospital.....Pittsburgh
St. Luke's Hospital.....Davenport, Ia.
West Philadelphia Hospital for Women.....Philadelphia
Martin's Ferry Hospital.....Martin's Ferry, Ohio
Union Hospital.....Fall River, Mass.
Youngstown (Ohio) Hospital Assn. .....
South Side Hospital.....Pittsburgh
St. Luke's Hospital.....Philadelphia
Monmouth Memorial Hospital.....New Jersey

Communications explaining the new plan of institutional membership in the association, as adopted at Atlantic City, have been sent with application blanks to all of the hospitals represented in the association. The advantages of such membership have been explained in the bulletins of the association and the editorial columns of this journal. Copies of the constitution have also been printed herein, and reprints are now available to members. The application blank, however, contains all information relative to institutional membership. All applications will be placed before the membership committee shortly. The secretary takes this opportunity to urge the hospitals to send in their application blanks at an early date. If such blanks have not been received, they will be sent out immediately upon request.

Twenty-First Annual Convention

September 8-12, 1919, will be the dates for the Twenty-first Annual Convention. This change from the dates announced in the January number was found to be more satisfactory to all concerned, and particularly the American Dietetic Association, which will again meet jointly with the American Hospital Association.

The Gibson Hotel will be official headquarters for the convention. With the appointment of the committee announced in the January number, plans for papers and discussions, as well as for the commercial and non-commercial exhibits, are now going forward.

Recommendations of the Commission Appointed by the Governor of Ohio to Make a Study of the Hospital System and Laws of the State

Following the adjournment of the Eighty-second General Assembly in April, 1917, the Governor of Ohio appointed a commission to study the hospital system and laws of the state, as well as the system of medical practice regulation. The complete report of the commission was filed with the Governor on January 4, 1919. The legislative proposals will be introduced in the present assembly, which convenes in January.

A digest of the hospital report and recommendations is published as a part of this bulletin. It should be of interest to hospital trustees and other officials. The complete report will be published and distributed by the Cleveland Hospital Council.

Preliminary Statement

The study of Ohio's present system of laws relating to hospitals and the work of outlining constructive suggestions which will be fundamentally useful in obtaining much needed health and welfare objectives has been somewhat difficult. Useful local, general information has been easily secured, but little has been found in the laws and experience of other states which is of use or adaptability to the Ohio situation. The scope of the inquiry has been of necessity limited. No study of Ohio's county infirmary system has been attempted (such a study has been made by the Health and Old Age Insurance Commission and its findings are commended to your attention); no study of our tuberculosis hospital and dispensary system has been undertaken because the development is far behind the legislative program enacted by the Eighty-second General Assembly; and no study has been attempted of the present system of management of the state institutions, many of which are hospitals, by the Ohio Board of Administration. The report and recommendations deal in particular with the present system and laws relating to the so-called private hospitals, with especial regard for their relation to the state. In many respects both are elementary.

Numerous proposals have been considered as the basis for constructive executive and legislative action. Two fundamental lines of action and procedure are possible:

1. The state should adopt a system of state control of private charitable hospitals and dispensaries to the extent that minimum standards of operation should be provided, as well as a corps of investigators and inspectors whose duty it should be to enforce these standards under the direction of some state department.
2. The state should adopt a system of reasonable supervision and regulation of private charitable hospitals and dispensaries to the extent that the best interests of the public health and public welfare in general shall be protected.

The state control proposal can be discarded with little discussion. Little can be found in the experience of other states that would justify even a limited application of it in Ohio, even if more than a few people could be found in favor of it. The state has proceeded already too far along the line of the other extreme. The present, therefore, is such executive and legislative action as will help to bring about a mutually helpful relation between the state and the hospitals. It should be a relation "of that intimate and cooperative nature which will more effectively make for the best interests of all concerned." The second plan is therefore recommended, and the carrying out of the following specific recommendations should be a step in that direction.

This recommendation is made in recognition of the fact that the state itself has duties to perform, as well as obligations to meet, toward the hospitals and dispensaries over which it has responsibility and supervision. These obligations can best be met, not by sending a horde of meddling investigators, inspectors or chief examiners from half a dozen different departments, whose authority is not clear and whose duties and responsibilities conflict

and over-lap, into the hospitals of the state, but by centralizing such supervisory authority as is necessary in the hands of a single state department and the adoption by that department, within legislative limits, of sound, constructive hospital policies, not in especial interests of any particular profession but solely in the interests of public welfare.

These recommendations would in no way conflict with the legislative proposal to reorganize Ohio's county health administration system as advanced by the Ohio Health and Old Age Insurance Commission. If that proposal is enacted into law it would result in closer working arrangement between the county and the state health departments. And if the state department is given additional authority as to hospitals as recommended herein, the county health officer could, as directed, act as the representative of the state department of health in various matters pertaining to hospitals. The county health officer plan as proposed by the Health and Old Age Insurance Commission is, therefore, highly commended.

Hospital Recommendations

RECOMMENDATION

The State Department of Health should, under authority already vested in it, create a Hospital Bureau.

DIGEST OF DISCUSSION

"The greatest need of Ohio in the hospital field today is the establishment of a central bureau in some state department, preferably the State Department of Health." No extended argument is needed in support of this recommendation. State health activities are already centered in the department of health. Hospitals and dispensaries are an important factor in the work of protecting the public health. The proposal is consistent with the modern tendency in national and state health organizations to align hospitals with the health department. The department already has authority to create such a bureau.

RECOMMENDATION

Legislation should be enacted vesting additional authority in the State Department of Health as follows:

1. To define and classify hospitals and dispensaries.
2. To require all existing hospitals and dispensaries—public or private, state, city, or county—to register with the State Department of Health within sixty days after the passage of this act; such registration to include name of institution, date of incorporation, if any, classes of patients cared for, names of controlling board and officials, and other similar information.
3. To require all hospitals and dispensaries to report annually to the State Department of Health on uniform hospital report blanks provided by that department. The information to be reported should include: under "Work Done," the number of pay patients, part-pay patients, free patients, and public charges cared for each year, and the number of days of treatment given each group; the number of dispensary patients, and accident and emergency patients; general information as to hospitals, beds, nursing, medical and other facilities; under the heading "Cost of Work Done" should be included income from patients, contributions, and capital income; under "Expenses" should be included operating expense, corporation expense, expenditures for permanent improvements, and such other general information as the department may require.
4. To transfer authority now vested in the Board of State Charities to inspect maternity hospitals and lying-in hospitals to the State Department of Health.

DIGEST OF DISCUSSION

It will be necessary to know what constitutes hospital or dispensary as a basis for a closer working relation between the state and such institutions. Our statutes do not now contain any such definition with the exception of an attempt to define lying-in hospitals and maternity boarding homes in Section 6227 of the General Code. Experience has proven that many difficulties are encountered when an attempt is made to enact legislation containing exact definitions of this kind. The other alternative is to give the proper state department discretionary authority to make such definitions and classifications. For purposes of the proposed legislation there can be no reasonable objection to giving such authority to the State Department of Health.

Ohio has no accurate information regarding its hospital and dispensary facilities. Such information is a prime essential as a basis for any constructive plan to increase hospital facilities in the state, for sickness prevention activities, or as one basis for any plan for sickness or health insurance. This proposal practically amounts to a census of Ohio's present hospital and dispensary facilities.

This proposal for annual hospital and dispensary reports would help to protect such institutions themselves against arbitrary action prompted by a recent decision of the Supreme Court in the case of Treasurer of Cuyahoga County vs. the Physicians Hospital Association (Grace Hospital). For purposes of taxation, the county auditor will, of course, determine whether a private charitable hospital is making "those who are unable to pay its first concern." Obviously no hospital can have objection to making such an annual report to the State Department of Health, which at all times will be available to county auditors who are now charged with the duty of putting taxable property upon the tax duplicate.

The proposed plan, if adopted and properly executed, will result in accurate information as to the cost of hospital and dispensary maintenance and operation. Such information can be placed at the disposal of the Industrial Commission and used by that department as the basis for determining its schedule of hospital fees and charges for hospital service rendered and paid for out of the state insurance fund. It would forever end the day of the arbitrary fee schedule as now prepared by the Industrial Commission and, furthermore, make it unnecessary for the Ohio hospitals to do "charity work" for the state.

The State Department of Health already has authority to license and inspect maternity boarding homes and lying-in hospitals (Sections 6259-6271 and 6227) as now defined but by another provision of the statutes (Section 1352); the Board of State Charities is also vested with authority to inspect these same institutions otherwise named. In spite of attempts to work out a joint plan of administration, great confusion has obtained. This dual responsibility and lack of system has made effective results impossible. Obviously the department which has authority to license maternity hospitals should also have the sole authority to inspect them.

RECOMMENDATION

The legislature should adopt a resolution directing the State Department of Health to study the present hospital and dispensary facilities of the state and to make recommendations for such legislative action as is necessary to bring about a closer working relation between so-called private hospitals and dispensaries and the state, and such further recommendations as are necessary for the development of existing hospital and dispensary facilities to meet the needs of the sick.

DIGEST OF DISCUSSION

The State Department of Health should be the chief adviser of the legislature in all matters pertaining to hospitals and dispensaries. Under the terms of this resolution, it should obtain adequate information as to the hospital and dispensary needs of the sick and make recommendations which should be helpful to the assembly in its

consideration of legislative proposals dealing with such matters.

RECOMMENDATIONS OF THE OHIO HEALTH AND OLD AGE INSURANCE COMMISSION

The report of this commission, with its legislative proposals in bill form, will have been filed with the Governor of Ohio before the February number of THE MODERN HOSPITAL reaches the members of the American Hospital Association. A digest of recommendations pertaining to sickness prevention and health insurance is given below. They indicate that the report will be far-reaching in scope and in importance. Recommendations for old age pensions are not included because of limited space.

These recommendations should be of interest to all hospital people and of especial interest to those in Connecticut, Illinois, Pennsylvania, California, Wisconsin, and New Jersey, as these states have similar commissions and some of them are about to make reports. Members of the association will be kept informed, so far as possible, through this bulletin of the activities of the different commissions. With the convening of the state legislatures, hospital trustees and officials should be on their watch for all such legislative proposals. It should be remembered that *hospital responsibilities will be revolutionized if health insurance proposals become effective.*

RECOMMENDATIONS ON SICKNESS PREVENTION

I. Adequate health supervision of all elementary and high schools, including annual medical examinations of all children by physicians and supervision by public health nurses should be provided. The cost should be borne by the state, the cities, and counties in some equitable proportion.

II. Provision should be made for adequate public health nursing service in each city and county, including pre-natal and infant care. The cost should be borne by the state, the cities, and counties in an equitable proportion. The State Department of Health should fix the qualifications of public health nurses and have general supervision over the work.

III. Physical education should be required in all schools for all children, and practical teaching of health and hygiene should be required in the elementary schools.

IV. The teaching of home economics, including home nursing, should be developed as rapidly as possible under the system of vocational education provided by the state in cooperation with the Federal government through the Smith-Hughes Act. Home demonstration work should be widely extended under the Smith-Lever Act, and legislation to authorize such work on the same basis as farm demonstration should be immediately enacted.

V. All children's homes should provide for adequate health care and supervision, and the board of state charities and the state department of health should have wider power to enforce standards of health care of children in institutions.

VI. The local public health system should be revised. The township, village, and small city health boards and offices should be abolished, and in their place should be a county health commissioner, subject to the supervision of the State Department of Health, who should have control of all public health work in the county. Cities of more than 50,000 population may, if they so elect, be separate health units as now constituted, subject to the same state supervision as the county health unit.

VII. A state program should be adopted to cooperate with the federal public health service for the suppression of venereal diseases in the state.

VIII. A law should be passed prohibiting industrial work by women for at least six weeks following childbirth.

IX. Every child under 18 should be physically examined before going to work and a certificate be obtained from the county health commissioner or the city health authorities that the work to be engaged in will not be physically injurious to him. The State Department of Health shall formulate rules and regulations for such examinations.

X. The program adopted for the study and care of the feeble-minded by the Ohio Board of Administration under recent legislation should be pushed through as rapidly as possible.

XI. Provision should be made without delay for the care of tuberculous patients in county and state institutions. These institutions should become agencies for treating incipient cases and not merely for the treatment of incurables. The counties should be required to furnish sanatorium facilities.

XII. In accordance with the report of a special committee, made to the Governor, on hospital legislation, there should be created a bureau of hospitals in the State Department of Health to survey the hospital facilities of the state, classify hospitals and dispensaries, and require reports on uniform blanks.

RECOMMENDATIONS ON HEALTH INSURANCE

I. The principle of health insurance is approved as a means of distributing the cost of sickness.

II. Health insurance should be required for all employees, to be paid for by employers and employees in equal proportion. The state should pay all costs of state administration as in the case of the Workmen's Compensation Act and all cost of supervision of insurance carriers.

III. The benefits to workers under health insurance should consist of (a) cash payment of a part of the wages of workers disabled by sickness; (b) complete medical care for the worker including hospital and home care and all surgical attendance and the cost of all medicines and appliances; (c) adequate provision for rehabilitation, both physical and vocational, in cooperation with existing public departments and institutions; (d) dental care; (e) medical care for the wives and dependents of the workers, if the same can be done constitutionally, and a burial benefit for the worker.

IV. (a) The exact form of organization of the medical service, including hospital and dental service, should be left largely to the State Health Insurance Commission which administers the act, to develop plans to meet conditions in different parts of the state. Minimum standards should, however, be established to insure that such service shall be adequate.

IV. (b) It should be clearly established that medical, hospital, and dental care shall be adequately compensated.

V. The insurance should be carried in establishment funds, mutually managed, and in public mutual associations. Companies or associations writing insurance for profit should not be permitted to be carriers of such insurance.

VI. The system should be administered by a state health insurance commission of four members, one of whom shall be the State Commissioner of Health. The state commission may fix such administrative districts as may be necessary and shall coordinate their work so far as possible with the local health authorities.

VII. There should be a reasonable waiting period not less than six days before cash benefits are paid. Medical benefits should be given during the entire time of disability. Benefit payments should be continued as long as disability lasts, but not exceeding five years.

Army Hospital Program

MODIFICATION SINCE THE ARMISTICE AND ADOPTION OF PLANS FOR DEMOBILIZATION

The Secretary of War has prepared the following communication relative to the hospitalization program of the Army for publication as a part af the bulletin of the association in THE MODERN HOSPITAL. It briefly states the modifications of the program since the signing of the armistice and adoption of plans for the demobilization of the Army in the United States. This, together with the list of hospitals for the reception of overseas cases with their bed capacity and list of hospitals classified for the distribution of sick and wounded from overseas as well as for the sick and disabled in this country, will be of great interest to hospital people in general and of especial interest to the members of the American Hospital Association.

My dear Mr. Wright:

I am very glad to supply the information which you request. The hospitalization program of the Army naturally underwent considerable modification, following the signing of the armistice and the adoption of plans for the demobilization of the Army in the United States.

At once all of the base hospitals in the National Army and National Guard camps thus became available for use in the care of sick and wounded from overseas, and at that time placed at our disposal some thirty thousand vacant beds. Calculations were made by the Surgeon-General, and it was at once decided to abandon as many projects as possible which called for Government expenditures in the way of leasing buildings and for alterations and construction on property other than that owned by the Government. In fact, an effort was made to curtail new construction from that time on, to the fullest possible extent.

While the program which had been approved of establishing hospitals in the various draft districts in sufficient numbers to make possible the return of sick and wounded to points as near their homes as possible, has been interfered with by the changed plans, nevertheless, it was not felt that we would be justified in continuing to expend millions of dollars for the development of new hospital projects simply for the purpose of returning men nearer to their homes, when it is believed that ample hospital facilities are already available, or are soon to be available, in military hospitals already functioning with complete staffs and equipment. I believe the justice of this attitude will be apparent to all.

The Surgeon-General was advised by cable early in December that he might expect about ten thousand sick and wounded per month, and that a total of approximately sixty thousand would require at least two months' treatment on arrival in the United States. It is interesting to note that during the month of December nearly twenty-five thousand sick and wounded were returned from overseas, and a cable received within the last few days informs the War Department that all casualties will have been evacuated to the United States at the end of three months.

With these facts before us, it is believed that we have ample hospital facilities available, for on the twenty-eighth of December, the Medical Department had one hundred and ten thousand beds in military hospitals of the United States, forty-nine thousand of which were vacant. In addition, ten thousand or fifteen thousand more beds will be available very shortly.

From what I have already said as to the policy of the War Department, I think a correct idea may be obtained as to the facilities available and the system under which it is intended to make use of those facilities. The policy of the War Department, so far as relates to the treatment of sick and wounded men, may be briefly summarized by the statement that it is the policy to do everything possible to retain sick and wounded soldiers in military hospitals until the maximum of improvement has been obtained, considering the nature of the disability.

I hope this will give you the information which you desire.

Very sincerely yours,
NEWTON D. BAKER,
Secretary of War.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

New High Frequency Apparatus

The manufacturers of this particular apparatus have informed us that they felt the need of placing at the disposal of the operator a single apparatus so constructed that it would deliver without exception every single high frequency modality and at the same time not break down under hard service.

These two features (the wide range of modalities and the ruggedness of construction) have a special appeal to hospitals and sanatoriums, particularly where many patients are treated daily.

This apparatus is so designed that all of the "Tesla" as well as "d'Arsonval" modalities are available, which literally makes this machine a duplex apparatus, in one housing or cabinet.

A good idea of the flexibility of this apparatus may be had by glancing over the various modalities available.

New Victor "Model Wantz" high-frequency apparatus.

They are as follows: (1) Auto-Condensation (Tesla); (2) Auto-Condensation (d'Arsonval); (3) Auto-Conduction (Tesla); (4) Auto-Conduction (d'Arsonval); (5) Diathermy (d'Arsonval); (6) Diathermy (Tesla); (7) Fulguration (Hot or Caustic Spark); (8) Fulguration (Cold or Dehydrating Spark); (9) Effluеve (Similar to a Static Spray); (10) Head Breeze (Similar to the Static Spray); (11) Inhalation (for Ozone Inhalation); (12) Ultra Violet Rays; (13) Vacuum Electrodes.

The apparatus is manufactured by the Victor Electric Corporation and is known as the "Model Wantz." It is designed to be operated from alternating current, but for institutions where only direct current is available, a rotary converter (mounted within the cabinet) can be supplied for converting the direct to alternating current.

Incubating Room

The importance of the factor of construction which has to do with insulation should be carefully considered as imperfect insulation is a serious disturbing element in maintaining a constant temperature in an incubating room.

Alternating layers of three-quarters of an inch wood flooring and one inch cork with intervening layers of building paper are nicely suited for this purpose, the number of layers of wood and cork depending upon the size of the room; for instance, a room four feet wide, with a depth of six feet and a height of seven feet, requires two thicknesses of one inch cork, with intervening layers of building paper. These layers are nailed together with the corners overlapping to make them perfectly air-tight.

Fig. 1. Incubating room.

The door is made of the same material and the door casing covered with felt which make it air-tight and dust-proof.

The entire inside of the room, i. e., the walls, ceiling, and door, is covered with a layer of transite (a combination of Portland cement and asbestos) and painted to prevent retention of odors and absorption of moisture. The heating medium consists of electric stoves arranged around the base of the room about three feet apart; the number depends upon the size of the room.

These heating stoves are controlled by a solenoid; this in turn is controlled by an electro-thermostat which is actuated by a small electric stove mounted directly underneath it. All wiring is enclosed in steel conduits to comply with the Board of Underwriters' Regulations. The diagram showing the plan of wiring conveys a general idea of the plan followed. The arrangement shown would apply to a room with inside dimensions of height, seven feet; width, four feet, and depth, six feet.

Proper ventilation is furnished by means of a ventilating fan with ventilating pipes. These pipes are installed directly underneath the heating stoves on each side of the room, while another pipe extends along the ceiling and terminates in a hood containing the fan. The fan is directly connected with the thermostat and controlled by same in such a manner that when the electric current passes through the heating stoves the fan is started and

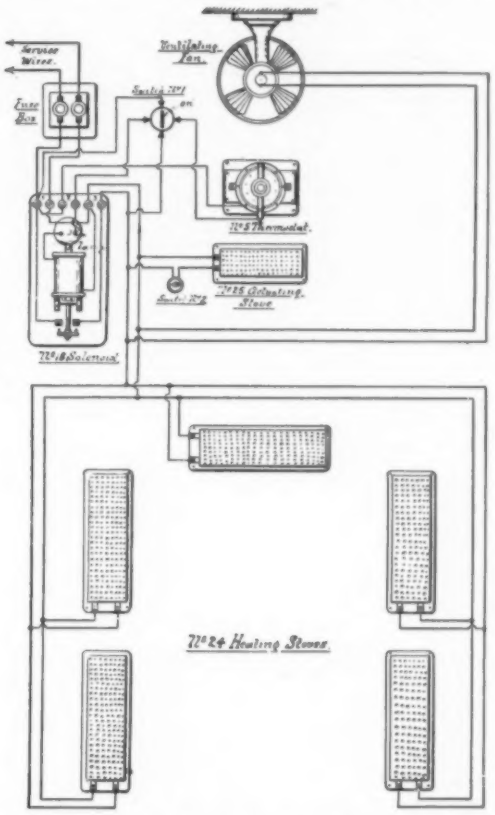


Fig. 2. Diagram of construction of incubating room.

continues to run as long as the current is passing through the stoves. Thus a perfect circulation of air is obtained, insuring a uniform temperature throughout the room.

The shelves are installed so that an opening is left between the walls and the shelves to allow circulation of air.

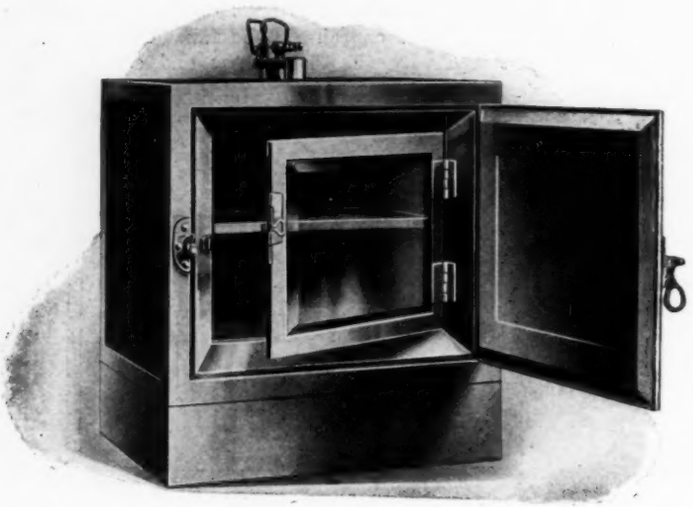
Bacteriological Incubator, Electrically Heated

The incubator shown is of a very substantial construction and of a size suitable for use in the laboratory of a small hospital.

A number of such incubators have been furnished by the Wilmot Castle Company, the manufacturers, to the United States Navy Department, who furnished the original specifications for its construction.

In place of the water jacket that surrounds the incubator chamber in the standard design, there is a thick wall of insulation material which effectively prevents the radiation of heat. The electric heaters are placed in a separate base below the chamber and are located so that heat goes up through air passages in the back and the two side walls. Both the top and bottom of the chamber are perforated, and the circulation of air gives a more uniform and constant temperature than the older methods of heating with electric units in the chamber itself. It also permits the use of the full capacity of the chamber.

The inner walls and frame are made of heavy copper and there are two doors, the inner one of which is of glass to allow inspection of the chamber. Dimensions are 9½ by 12 by 9½ feet.



Castle electrically heated bacteriological incubator.

A New Mechanical Rectifier

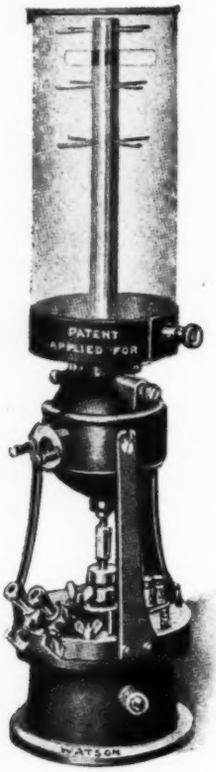
Many devices have been placed on the market from time to time for the suppression of inverse current. The new apparatus shown here is a modification of a well-known type of rectifier, the outstanding features of the design being a considerable reduction in dimensions and a proportionately increased portability.

Rectification has previously been obtained by using one revolving member made up of two or four revolving points, according to the number of contacts fitted to the interrupter, and this revolving portion has been generally in the neighborhood of ten to twelve inches in diameter, in order to give the necessary separation between the inverse and direct impulses. In modern mercury interrupters, there are usually four contacts, and consequently it was necessary to arrange two metal rods at right angles to one another, thus giving four revolving points. With a contrivance made on these lines, having a diameter of at least ten inches, it required a fair margin of power for its revolution, and, in order to safeguard the operator from accidentally coming in touch with the revolving points, it was found necessary to enclose the device in some protective cover. This again added to the size of the instrument, so that, if anything, it was larger than the interrupter itself.

No new principle is involved in the new rectifier. Instead of one revolving portion, however, there are three, mounted vertically one above the other, and each one is a third of the diameter of the original pattern described above. The apparatus is, therefore, very much smaller, and is arranged within an insulating tube of about four inches diameter. This tube also serves to support the collecting segments, completely houses the revolving portion, and prevents illumination of the x-ray room by sparking between the collectors and revolving arms.

The three revolving portions are connected in series, so that the inverse current, in its endeavors to pass through the tube, has to jump six gaps instead of two; but each gap is, of course, proportionately smaller, so that electrically there is no difference in the result effected between the two designs.

Owing to its compactness and light weight, the apparatus has been found to be advantageous for use with the Field Service of the English Army Medical Department.



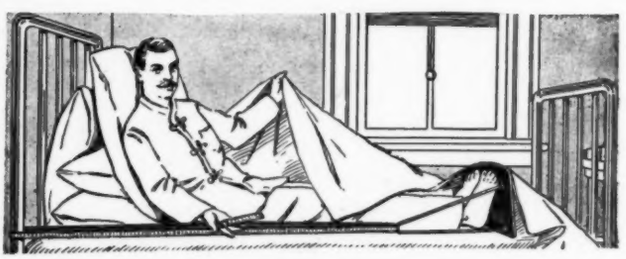
Mechanical rectifier.

Patient's Bed Rest

A new device to insure greater comfort to patients confined to their beds, either at home or in the hospitals, especially during convalescence, is being offered to the profession and the hospitals by the manufacturers, Lee, Scovill & Co., of Boston, and the surgical supply houses.

The apparatus consists of a white enameled or mahogany finished board 10 by 24 inches, with heavy wire rests on each side and a pair of straps. The straps are attached to the head end posts of the bed when the outfit is used as a foot rest to prevent the patient from slipping down the pillows. In cases in which the foot end of the bed requires elevation, the straps are attached to the post at the foot end and the board then acts as a head rest. When the patient desires a change of position, it is not necessary for him to call the nurse or attendant. All he has to do is to grasp the ends of the straps and either pull up or push down the board and refasten the buckles.

It has also been demonstrated that the device is of great assistance in obstetrical work, and a special extra strong folding device is now manufactured for this purpose.



Lee, Scovill patient's bed rest.